THE VETERINARY JOURNAL

AND

Annals of Comparative Pathology.

JANUARY, 1880.

THE PATHOLOGICAL HISTOLOGY OF EPIZOÖTIC PLEURO-PNEUMONIA.

BY CHARLES S. ROY, M.D., LONDON, ASSISTANT AT THE PHYSIOLOGICAL INSTITUTE OF THE UNIVERSITY OF STRASSBURG.

THIS work was undertaken at the suggestion of Professor Burdon Sanderson, to whom I am indebted for much kind advice and aid in encountering the various obstacles which presented themselves in carrying it out. I have also to acknowledge with gratitude the material assistance I have received from the British Medical Association; and without the faithful reproductions of my drawings, which I owe to the skill of Mr. Noble Smith, my paper would have lost a large proportion of whatever value it may possess.

The material for investigation was taken from twenty-one cases in all, from every one of which specimens were obtained for histological purposes. In every instance the *sectio cadaveris* was made in my presence immediately after the animal had been killed. There is no room for doubt that the animals were really affected with the disease in question; for, apart from the fact that six or seven of the cases occurred at a farm near London, where Pleuro-pneumonia has been enzoötic for several years, I had the advantage of being accompanied at nearly every *post-mortem* examination by a highly competent and experienced veterinary surgeon.

Before attempting to give a description of the morbid changes which are found in the lungs of Pleuro-pneumonic cattle, it is necessary to refer, though here we shall be as brief as possible, to one or two peculiarities in the anatomy of the bovine lung which distinguish it from that of man and of most other mammals.

Normal bovine lung.—One of these peculiarities (which, it may be added, have a direct bearing on the morbid anatomy of Pleuro-pneumonia) is the extreme degree to which the division into separate lobuli is carried. In form, these lobuli are irregularly polygonal, and they vary in size within tolerably wide limits; in most cases their greatest diameter, when the lung is distended, measures between one and three-and-a-half centimeters. They are joined together by loose connective tissue—so loose, indeed, that but little dexterity is required to separate them completely one from another without injury to the alveolar substance.

On injecting salt solution, or warm solution of gelatine, by one of the bronchial branches into the alveolar tissue, the fluid which transudes through the walls of the alveoli distends considerably this interlobular connective tissue, even when comparatively little force is used in injecting; so that the lobuli are found separated from one another by crack-like spaces filled with fluid, which measure, usually, three or four millimeters across.

The bronchiole, with its accompanying vessels, which passes to each lobulus, enters it on that aspect which is turned towards the root of the lung, afterwards dividing into a varying number of branches according to the size of the lobule. The branchlets of the pulmonary artery form, at the point where they enter into each individual lobule, typical examples of the so-called *end arteries, i.e.*, neither they nor their branches anastomose with the vessels of the neighbouring lobuli; and the importance of this fact, which corresponds with what is known as to the arrangement of the pulmonary vessels in other mammalia, will be seen when the characters of the Pleuro-pneumonic lung come to be described. Another point which requires notice here, is the arrangement in the bovine lung of the lymphatic vessels. These present certain characteristic peculiarities which appear to be due to the

extreme degree to which lobulation is carried, the lobuli forming more or less independent units—each representing, in fact, a miniature lung, which is anatomically complete in itself.

Under the pleura the lymphatic vessels form, on the surface of each superficially-seated lobule, a somewhat irregular plexus, to which the radiating arrangement of the component vessels gives a roughly stellate appearance. Corresponding with the extent of the pleural surface of the lobules, these plexuses measure from one to three centimeters in diameter. They are rounded or polygonal in shape. The vessels, or rather, sinuses, of which they are in great part composed, measure usually from a fourth to two millimeters in breadth by from two to eight in length. Joining these larger vessels together are relatively narrow canals, which are mostly provided with valves. Each stellate plexus is in communication with its neighbours through the medium of short, constricted channels, the course of the lymph through which is governed by the valves which are contained in their interior. These subpleural lymphatics can be readily injected by the "puncture method," and in making such an injection it may be seen that the coloured fluid spreads with great ease through the wide vessels composing any given plexus, but that it passes with much less readiness from one plexus to the others lying in its immediate vicinity. On this account it is difficult, from any single puncture, to fill with injection fluid more than four or five of these stellate networks. On the other hand, the Berlin blue, or other fluid used, passes readily from the subpleural lymphatics to the lymph-vessels which accompany the bronchioles and small blood-vessels; and, *vice versa*, it is easy to fill completely very considerable tracts of the subpleural lymphatic plexuses by injecting from the peribronchial or perivascular lymphatics—this, it need scarcely be added, is readily managed by inserting and tying the point of the syringe into the loose tissue immediately beside the wall of the small bronchus or pulmonary artery going to the part which it is desired to inject.

The vessels which connect the subpleural plexuses with the perivascular and peribronchial lymphatics, pass through the interlobular connective tissue, and can be beautifully demonstrated

by injecting the lymphatics and the alveolar cavities simultaneously—the former with Berlin blue, and the latter with warm gelatine solution. On account of the presence of these vessels, the interlobular connective tissue which is situated near the pleural surface of the lung is much more rich in lymphatics than that lying between the more deeply-seated lobuli.

In the case of the lungs of most mammals, as is well known,* there are present lymphatic vessels which run under the pleura towards the root of the organ, and whose function it is to convey the lymph from the pleural membrane to the retrobronchial glands. It is important for our subject to notice that, in the bovine lung, vessels of this kind are not found; in spite of oft-repeated and careful injections of the pulmonary lymphatics, I have never been able to find any evidence in the lung of the cow and calf of the existence of such vessels. Moreover, the course which the injection-fluid takes when the point of the syringe is introduced under the pleura indicates clearly enough what is the route normally taken by the lymph which enters the subpleural lymph-plexuses. As has been said, the Berlin blue passes with the greatest readiness into the perivascular and peribronchial lymphatics. The pleural lymphatic vessels, therefore, behave towards each superficially-seated lobule as if it were an independent lung in miniature, and pass over its surface to join the lymphatics leaving its root. Each lobule thus, not only in regard to its blood-vessels, but also in so far as concerns its lymphatics, is anatomically independent; and it is scarcely possible, in connection with the subject of Pleuro-pneumonia, to overestimate the importance of this deviation from the normal rule; for, as will be shewn further on, the morbid process in cases of the disease in question invariably spreads along the lymphatic vessels. If we ignore the above-mentioned peculiarities in the normal anatomy, many characteristics of the Pleuro-pneumonic lung necessarily remain unintelligible.

In so far as concerns their finer histological characters, the lymphatics of the cow's lung, both those situated under the pleura as well as those in the walls of the alveoli and infundibuli, do not differ in any important point from the pulmonary lymphatics of other mammalia. We have nothing to add to or take away

* Klein, *Lymphatics of the Lungs.*

from the description of these which has been given by Dr. Klein in his invaluable monograph on the subject, and turn now to consider the characters of the lung when it is the seat of the Pleuro-pneumonic process.

Macroscopical characters of the Pleuro-pneumonic lung.—A short reference to the macroscopic characters of the diseased tissue must necessarily precede the description of the minute anatomy, which forms the subject proper of this report. For this purpose we give the notes of two cases, in which the lesions present may serve as typical examples of those which are most frequently encountered. These notes were written in part at the time of the *post-mortem* examination, and were completed after a more thorough study of the fresh specimens had been made at the laboratory of the Brown Institution. Seeing that the general characters of the disease are the same in all affected animals, it has been thought better, instead of encumbering this paper with the notes of the other cases, simply to record the particulars wherein they differed from those two which are given in full.

CASE I.—(Extent of tissue involved comparatively limited.) Dairy cow, aged five years. Time of illness supposed by owner to be about a week. (Such opinions were naturally in all cases of little value.)

Left lung.—Pleural cavity contains about a pint of serous exudation-fluid. A thin layer of false membrane glues together those portions of the visceral and parietal pleuræ which are seated over the affected part of the lung. The false membrane peels off readily. The subpleural connective tissue is infiltrated with a dull, yellowish-white exudation which hides the margins of the superficial lobuli. The diseased part, which is about the size of a man's head, is somewhat rounded in shape, and occupies the lower part of the posterior lobe. A section through the infiltrated tissue shews the characteristic marbling due to the difference in colour between the reddish-yellow lobuli and the paler exudation occupying the interlobular connective tissue. The colour of the lobuli varies at different parts of the diseased mass: at some parts it is a pale reddish-yellow, at others the tinge of red is more pronounced; and one portion, about the size

of the fist, has a dark-red, almost black colour. These varying tinges of red pass gradually into one another in many points; elsewhere, again, the line of division between portions of tissue having different shades of colour is sharply defined. This sharpness of boundary is best seen in the case of the dark-red part, which is roughly wedge-shaped, with its base towards the pleural surface. The interlobular exudation also differs in its characters at different parts. At the margin of the affected mass, it is translucent and slightly yellowish in colour, with whiter points scattered here and there; at this part, it is semi-fluid, and escapes in good part on incision.

The interlobular exudation in the more deeply-seated portions is dull-white or greyish, with a slight tinge of yellow; and here, also, although it is completely solidified, examination with a lens shews that its surface is not absolutely uniform in colour. The subpleural exudation is seen on section to have the same characters as that occupying the interlobular tissue. The same granular appearance is found, on cutting or tearing the consolidated alveolar substance, as characterises the human lung affected with Croupous Pneumonia in the stage of red hepatisation.

The boundary line of the consolidated mass is somewhat irregular, the limit of the affected tissue being at some parts sharply defined, while at others the healthy passes gradually into the diseased substance. The irregularity of the boundary is due, in part, to the fact that the fibrinous exudation extends for a greater or less distance along the vessels and bronchi which pass into the diseased region. This perivascular exudation has the same characters as that which has already been described as occurring between the lobuli.

The artery passing to the dark-red hæmorrhagic portion contains a long, firmly adherent clot, which is greyish-red in colour, and is at some parts of a lighter tinge than at others. With this exception, the larger blood-vessels found in the affected mass are healthy in appearance, although their adventitia is infiltrated with fibrinous exudation.

The small bronchi passing through the affected part contain a quantity of viscid muco-pus. Their mucous membrane is at

some points irregularly swollen and paler in colour than usual. The lumen of some of the smaller air-tubes is seen to be almost occluded by this swelling, while in others the mucous membrane appears unaffected.

Right lung is healthy. The trachea and bronchi, with their branches, excepting those within the limits of the diseased tissue, are healthy in appearance.

Two of the bronchial lymphatic glands are much enlarged, and one or two of their afferent lymph-vessels contain a firm fibrinous plug extending for a few centimeters along their interior. The walls of the plugged lymphatics are thickened. The enlarged glands are firmer than usual, and present an uniform smooth surface on section. From the cut surface there exudes a viscid, slightly yellowish, translucent fluid.

Other thoracic viscera normal.

Abdominal viscera normal.

CASE II.—(The extent of affected tissue was here so great that it is given as a contrast to the above comparatively mild case.) The pleuræ are adherent on both sides over the larger part of their surface.

Left lung.—Nearly the whole of the posterior two-thirds of the organ is consolidated. The marbling is present throughout the diseased mass, as in the former case, whose general character it follows closely. About a half of the posterior lobe is dark-red in colour, due evidently to the occurrence of hæmorrhagic transudation. This part has a sharply-defined boundary separating it from the paler parts. Scattered through the diseased substance other hæmorrhagic masses are seen, all presenting the same sharpness of margin and varying much in size, some being so small that only a single lobulus is involved. A thick semi-transparent fluid escapes on section of the diseased tissue, the quantity, however, varying at different parts of the mass. The outer parts, those next the healthy lung tissue, are the most succulent, nearly the whole of the exudation flowing gradually away when a portion of the tissue is left for some time suspended by a thread over a beaker. At other parts, the amount of the non-coagulated exudation is relatively small, and the tissue is firmer to the touch and usually paler in colour. These drier parts are,

as has been noted, situated in the depth of the diseased mass, but in their immediate vicinity at some places are portions which are much more succulent.

The colour of the alveolar tissue varies as in the previous case, and the exudation between the lobuli and under the pleura has the same character in both instances.

The mucous membrane of the bronchi which was found within the limits of the diseased mass, is here and there irregularly swollen, and on the surface of the thickened membrane a few shallow ulcerations can be seen. The adventitia of the vessels and bronchi which pass through the diseased tissue is infiltrated with solidified exudation, resembling in its characters that situated between the lobuli. Those arteries and some of the veins of the hæmorrhagic parts which have been more minutely examined, contain firmly adherent clots.

Right lung.—The whole posterior lobe is occupied by the disease, the characters of which are the same as in the lung of the opposite side. In this lung, also, a large hæmorrhagic mass is found.

The connective tissue round the upper part of the two bronchi, at the point where they join the trachea, is infiltrated with exudation. Their mucous membrane, as well as that of the posterior part of the trachea, is irregularly swollen.

Four or five of the retrobronchial glands are larger and firmer than usual, and present an uniform, gelatinous surface on section.

Heart and large vessels normal.

Left kidney shows a few greyish-white mottlings scattered through its cortical substance, and its pelvis contains a calculus about the size of a bean. Right kidney is normal in appearance. Liver healthy.

These two cases will suffice to show what are the more striking macroscopical characters of the disease. Of my other cases, one presented, in addition to the lung affection, an infiltration of the loose connective tissue of the posterior mediastinum, extending from the diaphragm to the retrobronchial glands, and causing enormous swelling. The exudation here was translucent, semi-fluid, and slightly yellowish in colour.

In another case, two or three whitish nodules were found in the substance of the liver. Each of these was about the size of a bean, and they were firmer in consistence than the surrounding liver-substance. One of them, seated superficially under the capsule, produced a slight elevation on the surface of the organ.

In a third case, one of the kidneys presents in its cortical substance the same irregular whitish mottling which was found in Case II; here, moreover, there was no calculus present in the pelvis of the gland. The corresponding kidney was normal in appearance.

In so far as regards the general characters of the diseased tissue, one case resembles another pretty closely, and on looking over the notes of the cases which formed the basis of this report, I find that they differed from one another mainly as to the particular part of the lung, or lungs, in which the disease was situated, and as to the amount of lung-substance which was involved in the morbid process. As to the localisation of the lesion, there seems to be no part of the lung which is free from attack; nor, on the other hand, does the disease show any marked predilection for any particular region of the organ.

The amount of lung-substance involved varied greatly in different cases, and the two examples which are recorded above sufficiently illustrate this. Such differences, however, help us but little to a better understanding of the disease, seeing that it was impossible in any given case to tell whether the disease had *ab initio* involved all the tissue found affected at the time when the animal was killed, or whether the morbid process had for some time previously been gradually extending. For, unfortunately, no reliable data were obtainable enabling us to determine the time during which the disease had existed in any of the cases which were examined. And this is only what might be expected, considering the obscurity of the early symptoms and the insidiousness with which the disease seems so often to commence. Nor are there any characters in the lesions present in any individual case from which definite conclusions as to its age may be deduced.

Most writers on the subject of Pleuro-pneumonia seem to agree in holding it to be a subacute or chronic process, and the histology

of the disease fully bears out this veiw. There are also grounds for believing that, while in the great majority of cases the disease, having once affected the lung, spreads more or less gradually, invading the pulmonary tissue by degrees, in some rare cases, on the other hand, having once attacked a larger or smaller tract of lung substance, it shows but little tendency to spread. The morbid process appears to spread much more rapidly in some cases than in others, and on that account the extent of tissue affected cannot in any case be received as a means of discovering the time during which the disease has existed.

It is naturally very important, in dealing with the minute anatomy, to try to discover, in any given diseased lung, which parts have been first affected, and which more recently, in order to learn through what stages of development the affected tissue passes. Without entering on debatable ground, I may, for convenience of description, speak of the diseased lung-substance in three stages.

I. A stage in which the tissue is infiltrated with fluid, or semi-fluid, gelatinous exudation.

II. Where the exudation is more or less completely solidified.

III. Where the diseased tissue is characterised by being firmer, frequently paler, and usually less succulent, but which is specially distinguished by the fact that the blood-vessels are no longer pervious.

This last has naturally nothing in common with the dark-red hæmorrhagic parts, except that in both the vessels are impervious.

The hæmorrhagic infarctions, with their resulting anatomical changes, we prefer to treat as accidental complications occurring in the course of the disease. That they do not play any essential part in its pathology is sufficiently proved by the fact that they are completely absent in many cases, and by an examination of the cause of their occurrence in those cases in which they present themselves.

The above-named stages, it should not be forgotten, are purely abitrary divisions which are assumed only for convenience' sake. The tissue infiltrated with semi-fluid exudation, and which is

usually, though not invariably, situated at the more external part of the diseased mass, as a rule passes gradually into the tissue where the exudation has become solidified, and that again into that portion of the diseased lung-substance where the tissue is firmer and the vessels are impermeable to injection-fluid. On the other hand, as is noted in the two cases which are recorded above in full, in some places the portions of diseased tissue at different stages may be sharply defined from one another.

The third stage is not present in all cases, but its pathological importance has induced us to give it a place along with the other two, for it seems that through this stage the diseased tissue must pass before recovery can take place; that is, if recovery ever does result in cases of Pleuro-pneumonia—a matter which appears not altogether beyond doubt. The macroscopical characters of this third stage are not such as to distinguish it at the first glance from the second stage, though the difference between the two is usually quite evident on more careful examination. My attention was first attracted to this condition of the affected tissue, by finding that the blood-vessels were at some parts impermeable to injection-fluids. We shall find that its histological structure is sufficiently characteristic.

Liquid exudation.—In turning to the finer anatomy of the disease, the fluid exudation which infiltrates the outer parts of the affected lung-substance naturally comes first to be examined. It is rich in albumen, and its yellowish translucent appearance is due to its containing a variable number of red blood-corpuscles and cell-elements. These cells have, for the most part, the characters of white blood-corpuscles, *i.e.*, they are pale, slightly granular, are provided with one, two, or three nuclei, and when examined on the hot stage, show an amœboid movement. Besides these, and in variable proportion, there are other cells which are larger, being from twice to three times the size of the leucocytes, or lymphoid cells, as they are often called. These larger cells are usually distinctly granular, with one large bright nucleus, more rarely they have two, or even three, nuclei; their protoplasm is often vacuolated or else contains globules of fat. They also show a sluggish amœboid movement when examined under suitable conditions. These epithelioid cells resemble in their

essential characters those which are found in young tissue, or in developing cicatricial tissue, and which Ziegler* found to arise from the development of ordinary lucocytes—an opinion in which he is supported by Cohnheim.†

Ziegler's method of observation consisted in introducing under the skin of the dog small glass chambers of such a kind as admitted of their contents being readily examined with the microscope. These chambers he examined at various intervals of time after their introduction, and found that, while at first they contained chiefly pus-corpuscles, these later on were found to have disappeared in great part, their place being taken by the larger cells. Ziegler did not, of course, observe directly the formation of the larger epithelioid cells from the pus-corpuscles, but this method of inquiry leaves little room for doubt that the pus-cells, through assimilation of the surrounding albuminoid matter, and most probably of one another, increased in size, and assumed the characters peculiar to the larger cells. In Ziegler's observations these epithelioid elements underwent further changes, resulting in the formation of typical *giant-cells*. In the Pleuro-pneumonic exudation, on the other hand, these large cells seem mostly too degenerated, and break down, without advancing to any further stage of development; for, as has been noted, they very often contain large fat-granules, or their protoplasm is vacuolated; besides which, there is found floating in the exudation-fluid a large quantity of granular *débris* and free nuclei, which are evidently the remains of pre-existing cell-elements. It should be added, that between the pus-cells and the larger epithelioid elements all varieties of intermediary forms are found.

Minute anatomy of the diseased lung-substance.—Turning now to an examination of the minute anatomy of the affected lung-substance, we shall first attempt to describe its rougher histological characters as seen on examining thin sections of the hardened tissue with a low magnifying power.

On examining such sections taken from various places, passing from the healthy tissue into the substance of the diseased mass, we find, at the portions which are least affected—those usually situated next the healthy lung-substance—that the exudation is seated almost exclusively in the interlobular connective tissue, or in that lying under the pleura when the section is taken close to the free surface of the lung. The alveolar substance is still comparatively unaffected, although the lobuli may be completely embedded in the surrounding fibrinous exudation. The exudation at the very outer part of the disease has, being semi-fluid, disappeared in good part during the process of hardening, leaving only a few fibrinous bands strengthening the normally present

* "Ueber patholog. Bindegewebsneubildung," in *Verhandl. der Würzburger p. med. Ges. N.F.*, Band x, 1876.

† *Vorlesungen über allgemeine Pathologie*, 1877.

connective tissue-fibres which pass from each lobule to its neighbours.

Advancing further into the affected region, we find that these fibrinous bands become rapidly thicker and thicker, until the spaces situated between the lobuli are filled and distended by an apparently compact mass of coagulated fibrine. In this condition the interlobular spaces usually measure from two to four millimeters across. We have said that this coagulated exudation was apparently compact; but more careful examination shows that running through it there are a number of wide channels, whose walls, when seen in cross section, present an irregularly rounded outline. These canals, which are readily overlooked, on account of their lumen being almost invariably filled with fibrinous coagula, vary much in width at different parts, but as a rule they measure somewhere between an eighth and half a millimeter in diameter. They can, in fresh specimens, be injected with coloured fluid by the *puncture method* without great difficulty, and their nature thus more closely examined. In specimens so prepared it is easy to convince oneself that these canals running through the coagulated exudation are in direct communication with the perivascular and peribronchial lymphatics—that they are, in short, provisional lymphatics, destined to carry off the lymph from the diseased tissue. In their arrangement these canals vary much at different parts of the affected lung-substance, but they form usually a tolerably rich network between the lobuli. This network is closest near the pleural surface of the lung, and closest of all in the exudation lying under the pleura. That they are not the same lymphatics which are present in the normal lung, between the lobuli and under the pleura, is evident from the fact that, in the latter situation, their course is entirely different from that of the normal subpleural lymphatics, whose arrangement, as has been pointed out, is very characteristic. It has been said that they are usually filled with fibrinous coagula, and it is between these latter and the wall of the canal that the injected colouring matter finds its way.

In fig. I., which represents a vertical section taken from a superficially-seated lobule and seen with a low magnifying power,

these provisional lymphatics are well shown. On the right-hand side of the drawing, it can be seen that the coagulated exudation which occupies the subpleural connective tissue (*a*) is pierced by a number of channels (*b b*), which are partially occluded by fibrinous coagula. The dark lines running between these clots and the walls of the lymph-vessels represent the Berlin blue with which the specimen had been injected (*puncture method*) previous to its being hardened.

At the lower part of fig. 1. is represented a part of the interlobular exudation (*c*), in which one lymphatic vessel (*d*) is seen in transverse section. Towards the middle of the section, and near its upper left-hand corner, can be seen the perivascular and peribronchial exudation (*f*), in which are situated several lymphatics containing Berlin blue.

In tissues which have reached what we have called the *third stage* of the disease, the above-described lymphatics can no longer be injected, or else the injection passes only for a very short distance along their interior. Even here, however, the outline of the closed tubes can be seen *in situ*, they having evidently become impermeable at the time when, on the cessation of the capillary circulation, no more lymph remained to be carried off.

Independently of the presence of the lymph-channels, the appearance of the interlobular exudation, when seen in thin sections with a low-power objective, is by no means uniform, from the fact that the meshes of the network formed by the fibrinous threads are closer at some parts than at others. This want of uniformity in the fibrinous matter lying between the lobuli, which is rendered strikingly apparent by the variation in depth of the bluish tinge which logwood imparts, is evidently due for the most part to the gradual and irregular manner in which the coagulation of the fibrine has taken place.

Leaving for a moment the *interlobular* exudation, we turn to notice shortly what are the rougher histological characters of the *intralobular* tissue within the limits of the affected part. It has been said that, before the alveolar substance proper becomes involved, the disease products are found invading the connective tissue between the lobuli and under the pleura. Simultaneously

with its appearance in these latter situations, and also, therefore, before the alveolar substance is affected, we find the exudation occupying the tissue surrounding the intralobular blood and air-tubes. This condition is illustrated by the specimen from which fig. I. was taken, and in which it can be seen that the air-cells are still free from evident affection.

The perivascular and peribronchial exudation resembles in its general characters that which is found between the lobuli, *i.e.*, it consists for the most part of fibrinous coagulum. It is generally found that, although the vessels and bronchial branches are completely surrounded by a thick layer of exudation, their lumen at first remains unobstructed. In those tissues, however, which have advanced well into the *second stage* of the morbid process, and *a fortiori* in the *third stage*, the intralobular bronchioles most usually contain fibrinous coagula.

Throughout both the first and second stages, the perivascular and peribronchial lymphatics remain pervious to injection-fluid. After the exudation has invaded the loose connective tissue of the affected region, and thus compressed to a greater or less degree the alveolar substance, this latter is finally found to be the seat of well-marked morbid changes.

Using a higher magnifying power, we return to the examination of the interlobular exudation. This we now see contains a varying number of cell-elements. These are for the most part young or pus-cells, such as were described as being present in the fluid exudation when examined in the fresh condition. Confining our attention for the moment to the diseased tissue in the second stage of development, we find that, at some points, the interlobular exudation is infiltrated with cells in great numbers, while at others these are only thinly scattered through the fibrinous coagulum. The key to this inequality of distribution of the pus-corpuscles is to be found in the presence of the improvised lymph-channels, which have already been described; for it is round their walls, and in the substance of the coagula which they usually contain, that the cells are most thickly crowded. At many parts, indeed, they are so closely packed, and the intercellular substance has become so much attenuated, that the term *lymph-adenoid* might justly be used to describe the

morbid tissue. At other parts, again, the tissue is not so completely flooded with cells, and the wall of the lymph-canal may be surrounded by only two or three layers of pus-corpuscles, while in the exudation between the canals only isolated cells, or groups of two or three, may be found scattered. The cells themselves, however, whether they are present in large or in small numbers, are identical in appearance; they are typical pus-cells, and differ in nothing from the cells found in tissues in the condition of simple inflammation. It is only in their distribution and, as we shall find, also in their life-history, that they are characteristic of the disease in question. Fig. II. is intended to illustrate the fact that these cells are mostly found crowded round the wall of the lymph-channels and in the meshes of the fibrinous clots which these usually contain in their interior.

At some parts we find the interlobular exudation presenting the characters of developing cicatricial tissue. This is most commonly found near the outer boundary of the affected mass, but by no means invariably so; of all places it is most commonly present near the pleural surface of the lung, and most so in the subpleural exudation. And it is on account of its cell-elements tending more readily to form cicatricial tissue, that the subpleural exudation distinguishes itself from that lying between the lobules.

The newly-formed connective tissue usually presents a laminated appearance on section, being composed of layers or bundles of fibrous tissue with intervening spaces, to the sides of which flattened cells are applied. This form of tissue, from its resemblance in structure to that of the cornea, has been named by Köster* *keratoid connective tissue.* When seated under the pleura, however, the newly-formed tissue may be supplied with blood-vessels which have reached it from the parietal pleura passing through the partially-organized pleuritic false membrane. This pleuritic false membrane must not be confounded with the subpleural exudation—that lying under the visceral pleura: the former differs in no essential particular from the fibrinous exudation found between the layers of the pleura in ordinary Pleuritis.

* Koster, *Sitzungsber. d. niederrheinische Ges. zu Bonn*, 1875.

Besides the lymphoid cells, the interlobular and subpleural exudation contains a varying number of epithelioid elements. These are more commonly found under the pleura than between the lobuli; and are, generally speaking, most abundant at those parts where the tendency to organisation is most marked.

At many parts, the cells which are contained in the exudation show signs of degeneration. This is especially the case in that condition which we have termed the *third stage.* Here the lymphoid cells are usually dull, seem often to be breaking down, and their nuclei stain badly with logwood or carmine, while the epithelioid cells contain vacuoles in their protoplasm, which has often become coarsely granular or contains large fat-globules. With these latter cells also the dull appearance of the cell-substance, and the difficulty with which the nuclei can be stained with colouring agents, lead to the belief that they have died before the animal was slaughtered. Cells showing signs of degeneration are also found during the *second* or even the *first stage,* while it is the rule in the *third stage* to find them either much degenerated or necrosed. In this latter stage, also, we often find the place of the cell-elements occupied by large numbers of unequally-sized angular granules, which are distinguished by their being tinged readily with carmine or logwood. They are usually found surrounding the wall of the lymph-channels, which in this stage are impervious, or in their interior. The presence of these granules, their unequal size and angular shape, together with their characteristic grouping in rings round the wall of the lymph-channel, form one of the most striking peculiarities seen on examining stained sections of Pleuro-pneumonic lungs. They are not confined entirely to the *third stage,* though in it they are most common, but occur here and there throughout the tissue in the *second stage* of the diseased process.

Leaving the disease products found under the pleura and between the lobuli, there present themselves for consideration those changes which occur within the lobuli, and which have only as yet been referred to in their rougher characters.

The perivascular and peribronchial exudation within the lobuli resembles, in many points, that found between the lobules. In both

the same fibrinous exudation is present, with its unequal and irregular appearance due to its irregular deposition or coagulation; in both there is the same peculiarity as to the distribution of the cell-elements, which have the same characters in both situations. In the tissue which we now consider, the cells are, however, on the whole more numerous, and in perhaps the majority of specimens examined the characters are those of *lymph-adenoid* tissue. In the exudation round the intralobular vessels and bronchi, too, the same tendency to organisation is found, the appearance of the cicatricial tissue being the same as in the interlobular exudation.

The lymphatic follicles which are found in the course of the perivascular and peribronchial lymph-vessels, and the importance of which in the pathology of Tuberculosis has been demonstrated by Burdon Sanderson and Klein, become in Pleuro-pneumonia early affected. They are found enlarged, the contained lymph-cells being increased in number, while the margin of the follicle is rendered indistinct and irregular by the presence of irregularly scattered cells. The usual appearance of the exudation round the vessels and bronchioles is represented in fig. III., which is taken from a specimen in the *second stage* of the disease.

In the *first stage* of the morbid process it is the rule to find the inner and middle coats of the intralobular blood and air-tubes unaffected. In the *second stage*, however, these structures frequently present a varying degree of cell-infiltration. In so far as concerns the bronchioles, while the muscular coat usually retains its normal appearance, the mucous membrane is often found infiltrated with fibrinous and cellular exudation to such an extent as to cause considerable increase in its thickness. The cells here found, being of the same kind as those which are present in the interlobular exudation, need not again be described.

No matter how seriously the mucosa be involved, it is most common to find the epithelial layer unbroken; although their dull appearance, and the imperfect degree to which their nuclei can be tinged with colouring agents, show that the cells have undergone some molecular change—most probably necrosis. The number of cells found in the interstices of the mucous membrane

varies greatly at different parts of the diseased tissue, and here and there both it and the muscular layer appear scarcely affected.

As regards the arterioles and venules of the lobuli, it is usual in the second stage to find both the media and intima but little changed, while at the same time the lumen is unobstructed; at some parts, however, which are comparatively rarely met with, these structures are infiltrated with a varying number of cell-elements. It is still more rare to find any evidence of proliferation of the endothelium of these smaller vessels. Such proliferation is, however, found not infrequently at those parts which are the seat of the hæmorrhagic infarctions, and in these cases it is the rule to find the lumen of the vessel occupied by a fibrinous clot. In the *third stage*, the vessels usually contain a finely molecular substance, imbedded in which a few scattered nuclei can generally be seen; the endothelial layer is, however, unchanged in appearance. In the *third stage* it should also be observed that the cell-elements of the exudation which is situated in and around the walls of the intralobular blood-vessels and air-tubes, are usually more or less degenerated, the cells being at some parts replaced by granules, which are often angular, and which are stained more deeply by logwood or carmine than the surrounding molecular or fibrinous matter. At other parts, the cells retain their form, but are distinguished by the imperfect way in which they take on the staining of colouring agents; elsewhere, again, they have the same characters as those found in the *second stage*.

EXPLANATION OF THE FIGURES.

FIG. I.—Vertical section from pleural surface of diseased lung. Enlargement 10 diameters. The lymphatics have been injected with Berlin blue.

a. Subpleural connective tissue infiltrated with exudation.
bb. Subpleural lymphatics containing coagula. The dark parts the coloured injections.
c. Interlobular exudation, with
d. Lymphatic vessel cut across.
e. Alveolar tissue.
f. Perivascular and peribronchial exudation with injected lymphatics.

FIG. II.—Interlobular lymphatic vessel, seen cut across, with large numbers of young cells around and within its walls.

a. Fibrinous exudation.
b. Wall of lymphatic.

c. Mass of lymphoid cells. (Obj. iv. Hartnack. Eye-piece No. ii., tube drawn out.)

FIG. III.—Exudation round interlobular vessels and bronchus.

a. Alveolar tissue.
b. Artery.
c. Veins.
d. Bronchial branch. (Obj. No. iv. Hartnack. Ocular No. ii.)

(To be continued.)

EXTRAORDINARY CASE OF TUMOUR ATTACHED TO THE STOMACH OF A MARE.

BY A. H. SANTY, F.R.C.V.S., NORWICH.

THE subject of the above was a chestnut cart-mare, in remarkably good condition. She was very fat, and reckoned by her owner to be between twenty-five and thirty years of age. On the morning of the 4th November she had a large quantity of food given to her, and being a greedy animal, she also ate the contents of a nose-bag which was well filled, while waiting half an hour before proceeding on her journey. She was seized with colicky pains about 12 o'clock on the road home, and I was called to see her about 1.30 p.m., as soon as she had arrived. I found her in great pain, the pulse quick, weak, and intermittent; there were incessant eructations of gas, which could be seen passing up the œsophagus; there were also cold sweats. These symptoms remained unchanged until death took place at 4.15 on the following morning. I had attended the same animal on three former occasions, on two of which I noted the following symptoms: she was extremely dull and off her feed, pulse very weak and intermittent, but not much increased in frequency, respiration increased, and a peculiar sound was heard on listening to the heart's action—this I invariably noticed, and she always had an intermittent pulse, and a dull, vacant stare when well, but she was an excellent feeder. On the other occasion, I attended her for a sharp attack of Azoturia, which was very marked. She was with difficulty removed to the infirmary although it was only a quarter of a mile from where she was kept, and as soon as she got in the

Fig. I.

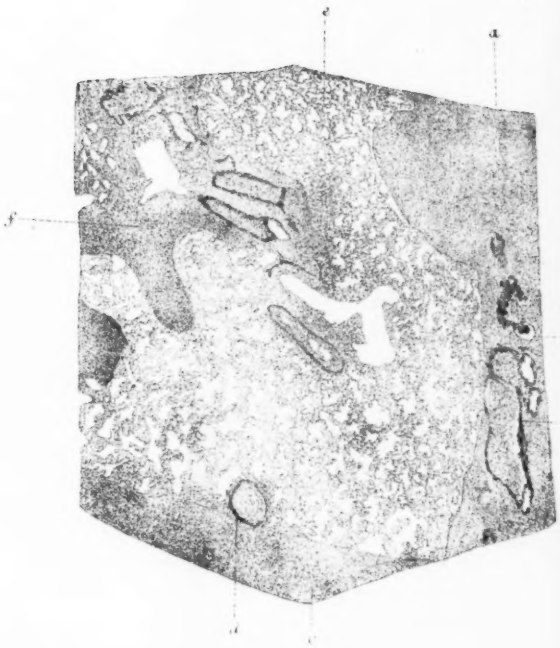

Fig. II.

box, she went down, unable to stand, and remained so for about twelve hours. She perfectly recovered from this illness, however, and remained in apparently good health until this last occasion. She was a good worker and a most useful animal.

Post-mortem Examination.—On carefully making an incision down the *linea alba*, an immense quantity of fluid escaped, along with small portions of food, at once leading to the conclusion that there was a rupture of some part of the alimentary canal. Proceeding onwards, I came to what at first appeared an enormously distended and diseased stomach resting on the parietes of the abdomen, but which, on making a closer examination, I found to be a tumour weighing over five stones, and measuring four feet one and a half inches round its long, and three feet three inches round its short axis. It seemed wonderful to me how an animal could do its daily work, and digestion go on, with such a great weight and bulk as this, which must have interfered most seriously, one would think, with the movements of the stomach and intestines. The only attachment the tumour had was to the stomach, which organ was extensively ruptured. The duodenum was greatly dilated near to the pyloric orifice, and the heart was also much dilated, especially the auricles. The remainder of the viscera were healthy.

[The tumour referred to was sent to the Brown Institution, where it was examined by Mr. Duguid, who reports that its only attachment to the stomach was through the omentum, which it chiefly involved. The weight of the mass when detached from the stomach, etc., was more than sixty pounds. In structure it was composed almost entirely of cells, with very little connective tissue. The cells were spindle-shaped, and Mr. Duguid is of opinion that it (the tumour) was a spindle-celled sarcoma. Some portions of it, in which the circulation was stopped by plugging of the vessels, were in a gangrenous state. It would have been worth noting at the autopsy whether the mesentery and mesenteric glands were involved.]

HÆMORRHAGE AFTER CASTRATION.

BY J. NUNN, M.R.C.V.S., ROYAL ARTILLERY, CAMP, ROZY-A-BAD, AFGHANISTAN.

IN the September number of the VETERINARY JOURNAL, which has just reached me, are some remarks by Professor Walley on hæmorrhage after castration; and also in some former numbers the practice of plugging the scrotum is condemned by various practitioners. Perhaps the following case may be of some interest. In January of this year, while encamped at Fort Jumrood, during the late Afghan campaign, an officer bought a Turcoman stallion, about six years old, from a dealer who said he had brought the horse from Bokhara; and the animal turning out troublesome—kicking in the ranks and screaming at mares—he requested me to castrate it. On my representing to him the increased danger after the operation because of the horse standing in the open in the depth of winter, with frost at night and a powerful sun all day, he said he was willing to run any risk, as it was useless to ride with troops in its present state. Accordingly I operated, removing the testicle with the clam and knife, and searing the cord with the actual cautery. The horse got up and appeared very little the worse, very slight cutaneous hæmorrhage taking place. This was between 3 and 4 o'clock in the afternoon. At 11 p.m. I was called, the horse being reported "bleeding to death." On seeing him, in about ten minutes, there was a stream of blood pouring from the right side of the scrotum, and which was stated to have been flowing for half an hour. I had the horse secured, and plugged the scrotum on that side with fine tow, pushing it well up into the canal, and throwing a little water on the scrotum and penis out of a bucket. The bleeding entirely ceased in a quarter of an hour. The horse was kept standing, and fed on mash diet for two days, when the tow was removed. He never exhibited a bad symptom, and made a rapid recovery, his owner riding him at the present time as a second charger. During the whole time the animal was in the open, the sun being very powerful during the day, with several degrees of frost at night.

DEATH FROM STRANGULATION OF THE INTESTINES.

BY J. M'GAVIN, M.R.C.V.S., MONTGOMERY.

ON the 6th November I was called to a white carriage horse, belonging to N. W. F. Humphreys, Esq. He was nineteen years of age, and had never been ailing before. The day previous he was driven to Welshpool, to the stag hunt, a distance of seven miles, where he stood for half an hour, and was then driven home again. He had his usual food, and appeared to be all right, but next morning he was in pain. I treated him for Colic, and he became easier; but the pain returned in the afternoon and continued, and his pulse got very high. I used morphia subcutaneously. His abdomen became very much distended with gas, and was punctured, but all to no purpose; he died in twenty-eight hours.

I made a *post-mortem* examination three hours after death, and found at the posterior end of the colon the tumour which has been forwarded. It was attached to the omentum by a small tendinous process the thickness of a pencil, which process encircled the colon, and produced strangulation of that viscus, and death.

[The tumour forwarded was about three inches in width, two in length, and three-fourths of an inch thick. It was not much discoloured, and appeared to be composed of fat and connective tissue.]

A FEW REMARKS ON THE USE OF THE CLINICAL THERMOMETER.

BY ADRIAN JONES, M.R.C.V.S., THE QUEEN'S BAYS, DUBLIN.

THERE being an outbreak amongst the well-fed hunter class of horses, I determined to make a few observations regarding the use of the thermometer. These remarks I forward to you, hoping you will insert them for the benefit of those who do not use that valuable instrument, that they may be the means of inducing them to try it and give us any practical suggestions which may occur to them.

1. If a horse is reported "off his feed," and on examination

his pulse and respiration are normal, but the temperature is over 105°, that horse will develop a Fever of some description in from three to four days.

2. If a horse is exactly similar to the above case, excepting in the temperature, which does not exceed 103°, Catarrh, or slight Laryngitis, or other mild disease will be the result.

3. During Fever the thermometer is of great advantage ; the temperature being high or low at least twelve hours before *any other symptoms* of increase or diminution of the Fever, gives warning, hence the treatment can be modified.

4. In not one single case out of a great many have I found the thermometer give erroneous indications. At first I could not reconcile the discrepancy between it and the ordinary means of diagnosing disease. For instance, I have seen a horse eat everything given him, pulse to the slightest extent increased, respiration normal, and otherwise looking well, but the temperature 105°. But the next day he was decidedly ill, the illness increasing daily, the temperature remaining about the same.

5. If the high temperature remains the same it is unfavourable;

6. But if it is very low, and the other symptoms are severe, it is favourable.

A few words on Bilious Fever—I mean, when the animal is nearly comatose, and the mucous membrane of the mouth and eye are the colour of mahogany. It runs its course thus: From the partial loss of appetite and high temperature to the extreme symptoms, there elapse four days. If the temperature is lower on the fifth day, there will be a *gradual* decrease of all the urgent symptoms to the seventh, when there will be a rapid change for the better. But if the temperature keeps high, the urgent symptoms will continue until the fourteenth day. To check the course of the disease appears to me impossible, but to moderate its intensity is possible. The treatment I have found most efficacious has been to give such medicines as act directly on the liver, such as podophylin, taraxacum, and mercury up to the fourth day; then bleed, and give diffusible stimulants, or gentle sedatives, as indicated by the fall or rise of temperature.*

* The disease I term Bilious Fever is *not* of the ordinary type, but has developed into a specific blood disease, of which I will send more particulars hereafter.

INVERSION OF THE BLADDER (PROLAPSUS VESICÆ).

BY "VIRTUTE ET LABORE."

On May 2nd, 1878, a messenger was sent to our establishment stating that a mare—the property of a farmer a short distance from the town—was foaling and required assistance. My colleague attended her at ten p.m., being shortly after receiving the message, and with a little difficulty he relieved the mare of a dead foal. The following morning he visited her again, and on his return asked, "Is it possible for the bladder of a mare to be inverted?" My answer in the affirmative was confirmed by stating a case which occurred in my experience when a pupil, while engaged in foaling a mare. This, however, was doubted by my principal, as no such thing had happened in his long experience as an obstetrist. On hearing this, our conversation on the subject ended, and I thought no more about it.

At half-past five the same evening another messenger was despatched to us, who said that "the mare was lying, and showed signs of pain, but they were most alarmed because they had never seen her 'make her water' since she foaled," and desired her to be seen as early as possible. My colleague having gone away for a few days, I paid a visit to this case at six o'clock. My patient was a strong, grey agricultural mare (aged). She was standing, but seemed very quiet. I observed her to be very wet from the vulva downwards, and on the insides of the thighs; the bedding I stood upon was also very wet. She was heavy and dull; had not eaten anything since morning; her pulse was rather quickened, but the beat normal. She had been seen "to pain herself," but not within the last half-hour. I examined her *per vaginam* by simply drawing the labia apart, and at once observed something abnormal—a large tumour, very red in colour in some parts, particularly those farthest removed from the external air, but those nearest were much darker, in fact approaching a blue tint. As soon as the air was admitted by this opening, the mare commenced to strain, and then the tumour was wet with little flowings all over its sides. I carefully made a digital examination of the tumour, and found it to

be the bladder, which was inverted. At each throe which the mare made during the examination, I could feel the urine flow from the mouths of the ureters in very minute jets. An attempt was made to reduce the tumour by gently pressing at its sides and neck, but this proved a failure; and her throes became stronger and more frequent. A bamboo cane, with a nicely-shaped head and pretty strong body, was used as a pessary, the head being first covered with wash-leather, so that it would in no way harm the organ. After administering a full dose of chloral hydrate subcutaneously, we commenced a second time to bring about reduction. The cane-head was placed against the fundus of the bladder, the other portion being taken hold of by an intelligent assistant, who acted according to my directions while I manipulated the sides and neck. The throes of the mare did not interrupt the procedure as much as before, they being weaker and less frequent. Up to the time that the greater half of the bladder had been returned within the sphincter there was difficulty experienced, but as soon as the balance was turned it went into its normal position quite suddenly—in fact, I was afraid the cane had been pushed through the organ; however, I soon found to my great satisfaction that I was mistaken. The cane was carefully withdrawn and my hand placed upon the face of the sphincter for a moment or two, I then gave place to my assistant who retained a hand over the sphincter for fully half an hour; at the end of this time I found it contracted sufficiently to permit of my relieving her bowels with my hand and then administering an enema. She had tepid water given to drink, and a little bran and linseed to eat; of the latter she partook very little.

At midnight I revisited her. She voided some urine, and showed a tendency to re-invert the organ; my assistant, however, being present and observing this, carefully introduced his hand and retained it there for some time. The urine voided was very dark in colour and "had a bad smell." I introduced a weak solution of permanganate of potass into the bladder, and it was retained about an hour and then voided. She continued easy for the remainder of the night.

On May 4th I visited her about midday. She had passed

urine twice, but it was very dark in colour. The odour was less offensive; the bowels had not acted, so they were relieved by the hand, and an injection *per rectum* administered. A four-drachm dose of aloes was also given her. The appetite was very bad, a small quantity of bran and linseed being all she took.

She was again visited on the 5th May, the bowels had responded very slightly; the urine passed was darker in colour than on the previous day, and the appetite improved. From this time she became convalescent, and in about ten days was discharged. During nearly every one of the ten days, drachm doses of potass bicarb. were given, in either mash or water, morning and evening. Her period of œstrum came in due course, and she was "put to the horse," which resulted in her being pregnant. Her labour, however, was again attended with inversion of the bladder, but this was immediately reduced, and no other evil results followed. The foal, however, died.

Editorial.

A NEW DECADE.

With the year 1880, the veterinary profession in this country begins a new decade, which, we earnestly hope and pray, may witness far greater progress in its political and scientific career, than has been effected during that which has just lapsed. Not that the advance which has been made in the last ten years has been either slow or trifling. On the contrary, it has far exceeded that of any previous decade, and especially in what we might more particularly designate its social or political condition. Indeed, within the last half of the decade it has effected more than ever it did since the obtainment of its first charter of incorporation. It has emancipated itself from the thraldom of a school or clique, which had complete control over its welfare, and exercised that control not for the benefit of the profession, but simply for its own aims and ends; and these were never in harmony with the interests of veterinary medicine or its practitioners. Every member of the profession has now a voice in the management of its affairs. Instead of two licensing bodies, maintaining a paralysing and destructive competition, one has subsided; and now the Royal College of Veterinary Surgeons, standing alone, is unfettered by an unhealthy and obstructive antagonism, while it gains a large accession to its register: many of those who now join us being well-known and highly esteemed veterinarians, who will add greatly to our strength and reputation as a corporate medical body. The period of veterinary instruction at

the schools has been extended, and with manifest advantage; the number of subjects taught has been increased to meet the demands of the Royal College; and the examinations for its diploma have been amended and revised. In addition, a higher degree—that of Fellowship—has been instituted, and this, from its nature and the privileges attending it, must eventually exercise a most important influence on future progress. All this social reform has been accomplished during the last decade, and we are confident that the position of the practitioner has improved in proportion as these reforms have made themselves felt.

In its scientific aspect, we regret that far less improvement is chronicled in our annals of the last ten years. We are yet more anxious to "doctor" than to prevent disease; to administer medicines whose action is but imperfectly known, in order to "cure" maladies whose nature is quite unknown, than to discover their causes or pathology; antiquated and utterly unscientific notions with regard to many common disorders still hold sway; and empiricism has yet an almost impregnable stronghold in our midst. True, in the short interval named, our literature affords ample proof that there are those among us who "do not stint their necessary actions in the fear to cope malicious censures," and who have made sacrifices to redeem us from the long-standing and oft-repeated charge of being illiterate. While in the VETERINARY JOURNAL, launched in the last half of the decade, every effort is made to worthily represent the profession in the world of literature and science, and to act honestly, independently, and unyieldingly in promoting the interests and prosperity of our colleagues, without reference to school or party. If original research has scarcely any place in our records, this appears to be a failing rather than a fault. The busy practitioner has no leisure or convenience for pursuing investigations, and our schools do not seem to be adapted to anything more than teaching students the rudiments of their future calling. The sister science has entered the field which should be entirely our own, and in the domain of veterinary pathology will reap the credit which she well merits, but which we see her receive with something more than a sigh of regret. The superior education she demands from her votaries, the encouragement she holds out to them, and the scientific ardour with which she endows them, ensure their success and our mortification at being nowhere in research.

With the opening of a new decade, the profession finds itself in a very different position to that which it held in 1870. It is now a united, then it was a disunited body: it is now independent, and every member has a voice and an interest in it, whereas then it was in the hands of a few, and the many were helpless and apathetic. Our pages testify to the livelier interest in professional concerns which has been awakened by the appearance of the JOURNAL, and the enthusiasm which is being developed for the suppression of abuses and the inauguration of reforms. Long before the decade is ended, and indeed within a very few years, we expect to see greater improvements effected than have yet been attempted. We are sadly in need of better education—general and

scientific—and the profession must insist upon candidates for its diploma possessing this, as on it depends all improvement—socially, politically, and technically. Our College must have a home in every way worthy of a profession which has a great future before it; and to obtain this every nerve must be strained and every source appealed to for aid. It is a disgrace to the Government and to the country, that the Royal College of Veterinary Surgeons is left to grovel in a den scarcely respectable enough for a coterie of Italian organ-grinders, seeing the immense advantages conferred upon the public by veterinary surgeons, and the very responsible duties imposed upon them. And what we have been striving to obtain for so many years—the protection of the profession and the public from the injury inflicted by impostors who borrow our title, by means of a Penal Act of Parliament—must be sought for without delay, now that there no longer remains any excuse for postponement.

Lastly, the profession should seek some means of inducing and encouraging its members to work in the wide domain of pathology, and to promote scientific advancement. All external incentive to study and work in the interests of veterinary medicine ceases when the graduate leaves his school, carrying with him medals and rewards, which are, perhaps, less intended to prove a stimulus to exertion than to attract him within the school portal. There should be no difficulty in instituting a system of rewards or acknowledgments, which would tend to rouse the latent energies and passive abilities of those who are in every way competent to undertake useful work, but who will not do so without some such prizes in view.

Finally, there are many defects and faults which depreciate our professional worth and social *status* at present, and which should be known no more to our discredit at the end of the new decade. These hold us now in heavy bondage, and we must free ourselves from them. This can be done by firmness and mutual good feeling, and united, but far more by individual effort.

"Every bondman in his own hand bears
The power to cancel his captivity."

NOTES MADE DURING VISITS TO THE REMOUNT DEPOT, SAHARUNPORE, NORTH-WEST PROVINCES, INDIA.

BY C. STEEL, F.R.C.V.S., 16TH LANCERS, ON SPECIAL SERVICE DURING THE AFGHAN EXPEDITION.

HISTORY OF STUDS AND DEPOTS.—As the Reserved Remount Depôts of the present day were preceded by Government Breeding Studs, some points in the history of the latter will give an appropriate introduction to my subject, especially as I propose to glance at the whole system of remounting the army in India.

The first breeding stud was established about 1798, at Poosah, in Lower Bengal, by Moorcroft, the well-known veterinary surgeon, who was sent out by the East India Company for that purpose, with a view to improving the breed of horses required for the army, the horses of the country being con-

sidered weak and deficient in size, although from some districts—as from the Deccan and Katyawa—good horses were obtainable for sporting or riding purposes. An extensive tract of land, amounting to about 3,000 acres, was secured, a number of mares and a few stallions were imported from England, and to these were added some mares from the Deccan and other parts of India, together with some mares, said to the Arab, which were presented. Thoroughbred and three-quarter-bred mares were at first put to thoroughbred horses, in order to *start* a good stock; Moorcroft being thoroughly aware that whatever modifications might be subsequently desirable, without this basis of good blood the improvement could not be obtained. One drawback to an immediate improvement was very soon discovered, viz., that of the degeneration of foreign breeds as the result of climate. It was therefore found that country-bred mares must be utilized; and the wisdom of this cross, which was made at Moorcroft's suggestion, was not long in being manifested, for troops were in due time supplied with a much more suitable animal, and consequently the stud system was then declared a success. Encouraged by this result, the East India Company extended the system to the North-west Provinces and Hissar. A place to the west of Delhi was selected for a site: this place was situated in a purely sandy district, dry, and at that time unprovided with irrigation. Here a superior class of horse was also bred and supplied to all India, one of the produce called "Pretender" being so eminent as to beat all English horses on the Indian turf and realize from three to four thousand pounds—a great contrast to the relative powers of Indian and English horses in the present day, the latter having now to concede as much as two stone or more to the former. But *then* first-rate English horses were attainable at more reasonable prices than now; it would clearly be rather too great a venture to send a "Blair Athol," "Gladiateur," etc., to India for army stud purposes. Owing to these efforts, there was a general improvement in the quality and size of the horses, and Government selected those considered the best, keeping them with a view to still further improvement; the remainder of the produce being sold, and in a degree disseminating desirable qualities throughout the country.

About the time of the establishment of the Hissar stud, a breeding establishment was started at Padnell, in Yorkshire, from which the Indian stud was supplied mainly with stallions.

The following enumeration of some of the stock used at this period, and up to 1826, will give an idea of the material employed in the Indian studs:—

"Adonis," by "Teddy the Grinder," out of "Precipitatis" dam.
"Bone Ash," by "Trumpeter," out of "Jilt," by "Buzzard."
"Capsicum," by "Pot-8-o's," out of "Sting" by "Herod."
"Benedict," by "Remembrancer," out of "Beatrice," by "Sir Peter."
"Œlasco," by "Clavèleno," out of a "Pioneer" mare.
"Tristram Shandy," by "Woful," out of a "Sir Peter" mare.

The Hissar stud lasted until 1839, when it was broken up in consequence of the stock being considered to have too much blood. Moorcroft's guiding hand was surely wanted here, but he had long since perished in Cashmere, and it is to be feared that less educated supervision had succeeded; for if it were true that too little bone was apparent in the produce, why sacrifice this acknowledged keystone of breeding so successfully established? Crosses securing the desired substance were surely attainable. About this time Padnell was also given up, and Willesden Paddocks established. Poosah breeding establishment succeeded, but it was subsequently transferred to the depôts of Buxar and Karuntadhee, places on the banks of the Ganges below Benares. At one time these had as many as 6,000 mares served by Government stallions, and the depôts continued, despite of the inquiry of three commissions, until

1876, when all breeding studs were abolished. Studs at Saharunpore and Hapur were started in 1844, in consequence of the climate of the North-west Provinces being considered more favourable, and were conducted partly under the Assamee system, by which mares were left in the hands of zemindars, or owners of land. The "Home Stud," so called after the defunct Willesden, was established at Kurnaul, in the Punjab, in 1864, and there the Assamee system was abolished, Government mares being kept at the stud. During its existence of about thirteen years, two commissions were assembled to report upon its progress. Difficult and varied must have been their investigations, for all kinds of vast and expensive experiments were tried in the way of crosses—thoroughbred horses served thoroughbred mares, ditto were put to half-bred country mares, Arab stallions were crossed with English, Waler and country mares, even Arabs were tried with Arab mares, and thoroughbred horses with English cart mares. The produce indicated the cross of the English thoroughbred or three-quarter-bred stallion with stud-bred mares (of English and Arab blood, and foaled in the country) as being productive of the most useful horses. Arabs were noticed to degenerate in size; "Waler" mares were remarkable for being, as a rule, barren for the first four years of their residence in the country—not more than four per cent. proving prolific, a circumstance that might be taken as rather a nice gauge as to the time required for their thorough acclimatization. Ultimately, however, their produce with English horses showed quality and points; the turf annals will also prove them to have possessed speed and endurance. Thoroughbred horses with cart mares produced nondescripts; the pure thoroughbreds were fancy articles for the turf rather than useful as horses for the army; the cross with half-bred country mares varied much in its results, but the average was not satisfactory.

The "Home Stud" started with about twenty mares, and at last reached five hundred.

One smaller depôt has not been mentioned, viz., that of Ghazeepore; and amongst private studs of any notoriety are the Vincent of Barh, in Bengal, consisting of about twenty-five to thirty mares; the Probyn at Probynabad, near Mooltan. General Parrott also started a stud in place of the "Home" one, and which is now flourishing, and numbers about one hundred head of stock. With regard to the number of mares in existence in the North-west Districts during the time that the Saharunpore and Hapur studs were working on the Assamee system, there were never under three or four thousand, and the number of stallions imported from England up to the time of the abolition of breeding studs in 1876 amounted to hundreds, of which only a few now remain.

MANAGEMENT OF STUDS.—Moorcroft might be considered the sole director of the stud system in his time; but subsequently a military staff was established, consisting of a Superintendent (Colonel), two Depôt Superintendents (Lieutenant-Colonels or Majors), Depôt Officers (Under-superintendents with subordinate officers), and a Veterinary Surgeon to each establishment. The following is a list of the Stud Department in 1870:—

Superintendent of studs.—Major Couper, Staff Corps, Saharunpore.

Deputy-superintendents of studs.—Lieutenant-Colonel Sir C. W. D'Oyley, Staff Corps, Hapur; Major W. C. McDougal, Staff Corps, Central Provinces.

First-class assistants.—Colonel A. A. Macdonnell, Bengal Infantry, Saharunpore; Colonel A. C. Plowden, Staff Corps, Buxar.

Second-class assistants.—Lieutenant-Colonel Parrott, Staff Corps, Kurnaul; Lieutenant-Colonel E. S. Jackson, Bengal Infantry, Hapur.

Sub-assistants.—Lieutenant-Colonel W. B. Irwin, Staff Corps, Poosah; Lieutenant-Colonel Trench, Staff Corps, Kurnaul; Major Smith, Staff Corps, Ghazeepore.

Doing-duty officers.—Sir J. Farquhar, late 2nd European Light Cavalry, Poosah; Captain Rochfort, late 4th European Light Cavalry, Karuntadhee; Lieutenant L. J. Jamieson, 7th Hussars, Ghazeepore (probation); Captain Capel, late 5th European Light Cavalry, Karuntadhee (probation).

Veterinary Surgeons.—Garrad, Principal Veterinary Surgeon, Karuntadhee; Woods, Saharunpore; Kettlewell, Kurnaul; Skoulding, Poosah; Bath, Hapur; Oliphant, Hapur (officiating).

There were conductors, who had been sergeants in regiments, to overlook the grooming and feeding, a head salootree, and four or five assistant salootrees to each establishment; nalbunds (farriers), six to each depôt; syces, etc. The superintendent's duty was general direction. The deputy-superintendent's duty was to look to the breeding under the Assamee and Zemindar systems, the Assamee being a contract between Government and a breeder, by which the former was bound to take, and the latter to sell, the produce of mares left with them and covered by Government stallions, the price being from 70 to 120 rupees when from six to twelve months old. Under the Zemindar plan, the sale to Government was optional on both sides, the only stipulation being "first refusal" of produce. First-class assistants attended to the management of horses at the depôts or studs; second-class acted under these; sub-assistants helped them; the "doing-duty officers" (not a very definite title) acted under all the former, and had certain stables told off to them, as in troops of cavalry. The veterinary surgeon's duty was simply confined to attending cases in hospital. Here was a large and important establishment; and that the charge was considered a responsible one, will be assumed from the rank of the officers engaged; while the high pay of officers of such standing proves also that Government was not deterred by the expense of remuneration from doing its best to make the department efficient. Doubtless, the superintendent must have had his hands full with such an army to command; the deputy-superintendents must have been weary of their travels over extensive districts to see after the welfare of the matrons and the treatment of the rising generation; first, second, and third class assistants, it will be observed, had separate stations, so it must not be presumed that they were superfluous; and the "doing-duty officer" was clearly required. Thus an analysis shows that the staff was not too strong. Whether all officers were adapted for their posts might admit, perhaps, of a question. One would be rather suspicious of the intimate acquaintance with equine matters of those from infantry regiments—not that it is impossible to select horsemen from infantry, but there does not appear to have been any qualifying test. One of the superintendent's duties on visiting the districts, was to inspect the mares which were submitted to him for approval, when, if passed, they were branded on the shoulder. As has been above stated, Government was obliged to take the produce of these under the Assamee system, or on the Zemindar plan an extra ten rupees was always given for the foals of branded mares. On inquiry into the management of studs and depôts, I much regretted to find that the duty of the veterinary surgeon was so scrupulously restricted to the treatment of his patients in hospital. It is well known in the Army, and appreciated in all large horse establishments, that veterinary supervision keeps the hospital comparatively empty, and that there are innumerable opportunities for making suggestions, hygienic and otherwise, that certainly add to well-being and efficiency. It ought surely to be remembered that the veterinary officer *has* been subjected to his qualifying *test*.

FINANCE.— At all the Bengal studs a very nominal rent was paid for the land. At Hapur it is hired; at Saharunpore it is the property of Government; at the "Home Stud" it was also advantageously hired, with right of cutting timber. So far economy appears to have been secured. The system

of accounts, however, seems puzzling to the uninitiated. For years the accounts have been kept at Calcutta for *all* studs and depôts included, and none for individual establishments, for which merely a cash-book was kept by their respective commandants. There was one exception, however, viz., that at the India home for stallions. No attempt appears to have been made officially to estimate the cost of each horse.

When the various sources of expense subsequent to purchase are taken into consideration, no wonder that it has been found difficult to arrive at a true conclusion as to the expense of remounts by the time they join for service. In some instances a youngster is bought at six months, kept till he arrives at three or four years of age, does not then turn out satisfactory, and is rejected; there are travelling expenses; outlay of men attending purchase of stock; expenses of farm; allowances had to be made to Assamee for breeding, keep of stallions, for cultivation of grain crop, etc., and some of these, I understand, remain to this day unadjusted. The startling number of rejections during the stud system point to an enormous loss, amounting, as they did, to at least fifty per cent. of the produce purchased and bred. The present system—that of purchasing horses from four to seven years of age—ought to be an improvement, as the calculation of expenses is evidently more simple, and the risk of unfitness by misadventure much less. But there are still two great drawbacks, viz., general unfitness and unsoundness.

The latter could certainly be prevented by the more perfect recognition of veterinary aid; the former would indicate that any scepticism as to the skill of purchasers is in some instances confirmed. And that, as a rule, such misfits can be avoided, I affirm from personal inspection of the animals bought by one particular agent, which exhibited that consistency of judgment essential in the selection of horses.

Taking the establishment of studs in India during a period of seventy years, as a commercial enterprise, it must be, and is, admitted to have resulted in absolute loss; but the question arises, Has not the country been enriched by the general improvement in the breed of horses? The answer is, Yes; but, unfortunately, the structure raised during this long time is tottering, if not destroyed, by the absorption of parent stock since the apparently ill-advised total abolition of studs. I understand that stallions and mares have become almost totally extinct, in consequence of neglect on the part of the natives into whose hands they have fallen.

Another system has now, however, been started which must secure the best wishes of all connected with horse interests in India. It is that of stallions provided by Government to serve mares at a very small price—no restriction whatever, not even that of "first refusal," as in the Zemindar system, being placed upon the owners of the mares, Government competing on fair terms in the market, where it is hoped there will be a general improvement. Mr. Hallen, Staff Veterinary Surgeon, superintends this system for all India; Mr. Batt, V.S., acts under him for the North-western Provinces and Rajpootana, his charge comprising a district larger than France; Mr. Meyrick, V.S., for the Punjab, who represents a tract of country as large as Germany. These officers, for the insufficient remuneration of 200 rupees per mensem, in addition to their pay as Army Veterinary Surgeons, are supposed to keep an account of all the brood mares in their districts, the stock produced, and what becomes of it. To carry this supervision out thoroughly with so small a staff in such extensive districts, is obviously impossible. However, it may be a move in the right direction, but this has yet to be proved.

The price given for remounts ought to be a remunerative one to the breeder, viz., 550 rupees for four-year-olds and upwards. When we consider the expenses connected with this effort of Government to improve the

breed of horses in the country, it is obvious that a very large return ought to result in the way of increased efficiency of our cavalry and artillery.

One officer of thirty years' *Indian* experience is entrusted to purchase stallions in *England*, in place of Mr. Phillips, who formerly supplied them. There is no fixed price, and on looking through the sales of yearlings, it may be observed that some are purchased by this officer to be kept until of sufficient age for covering. The stallions are sent out by troop-ships, and consequently the expense of transit is curtailed. The number imported into India annually is from twenty to thirty. These stallions, when not on their rounds, are kept at Hapur ; and when in breeding districts, they cost about eight rupees per horse per month. There are hundreds of register keepers to pay, farriers, salootrees, etc., and at least £2,000 per annum is given in prizes for mares and geldings. The object of offering a premium for the latter is to encourage castration, as there is a very obstinate prejudice amongst the natives against the emasculation of their horses.

It is to be hoped, as before said, that this free-trade system of horse-breeding may meet with success ; if so, it may at some future time prove an example for imitation at home, where it is not impossible that some encouragement from Government may be required to keep up the supply of good horses in our markets, which, it is to be feared, is gradually failing us. The supervision in India is in excellent hands with Mr. Hallen, and that he is not idle or wanting in enthusiasm is well known. It is the working expenses and want of support from native breeders that are the chief obstacles apparent ; but if the sympathy of the latter can be secured, we may perhaps allow a large margin of expenditure to be placed against the national benefit, and be content for a time, although no direct economy is immediately obvious in the military supplies. That some mode of diminishing the cost of trooper production was necessary, will be proved by estimating the expense of matured horses during the stud arrangement and by the present depôt system. The amount under the stud system has been variously estimated at from 850 to 2,800 rupees, but the best authority appears to place it at about 1,750 rupees, the sum being made up of the price of stallions, amount of purchase money for produce, feeding, pay of establishment, rent, and repair of buildings. Is it less than this in the present day? Every "Waler" costs 100 rupees for transit from Calcutta ; add to this the purchase money, 550 rupees, the cost of Calcutta Depôt where they are collected, that of the reserved depôts of Hapur and Saharunpore, deaths, accidents, rejections for unsoundness, keep of horses at depôts (sometimes for years) at a rate of 25 rupees per horse per month, and the ultimate expenses of transit of selected horses to regiments. *(To be continued.)*

HEMIPLEGIA IN THE HORSE.

GENERAL HEMIPLEGIA is somewhat rare in the horse, and an interesting case is very seldom recorded. In the Belgian Sanitary Report for 1876, quite recently published, M. Putzeys describes, under that designation, a case of Paralysis in a horse which is most unusual, so far as our experience is concerned, and which was possibly due to cerebral congestion or hæmorrhage. The animal was only four years old, and was employed in heavy draught. One evening, after returning from work, he appeared to be dull and sluggish; he ate as if he did not care for his food, and masticated slower than usual. Next morning he was in the recumbent position, and could not arise. Putzeys was called, and found the following symptoms : Lower lip, and the ear and upper eyelid of the left side destitute of sensation and incapable of movement. With the assistance of a number of men, and after several attempts,

the horse was raised to his feet, when it was found that the left fore and hind limbs had no power, but swung about or were dragged when the animal advanced; at each step, even when assisted, it threatened to fall. Left to itself and strongly excited, it hesitated to move; but at length when he did so, it was with great difficulty and obliquely. The pulse and respiration were greatly accelerated, and the conjunctivæ injected. The horse was bled repeatedly, cantharides liniment was rubbed into the region of the spine and the paralysed limbs; nux vomica was administered in progressively increased doses, and setons inserted into the neck. In fifteen days the animal was able to resume its work.

In the same report, another veterinary surgeon also briefly describes two cases of Hemiplegia occurring in Norman horses, four years old, brought from France by railway. One died, the other recovered.

CONTAGIOUS FOOT-ROT IN SHEEP.

AT a recent meeting of the Tunbridge Wells Farmers' Club the subject of Foot-rot in sheep was discussed, when Mr. Henry Noakes, M.R.C.V.S., and the intelligent and practical farmers present, who are, of course, much interested in everything relating to sheep-farming, constituting, as sheep do, a very considerable item in Kentish agriculture, came to the unanimous conclusion that this disease was undoubtedly contagious, and that it should be scheduled as such in the Contagious Diseases (Animals) Act. It is unnecessary to go over the evidence adduced on this occasion in support of the conclusion arrived at. Suffice it to say that it was absolutely convincing, and being the result of the observations of not only scientific, but enlightened practical men, nobody with any reasonable amount of sense would be found likely to deny its value. It is a fact, that all those authorities who have made sheep a special study have arrived at the same conclusion, this having often been forced upon them by the painful and oft-recurring experience of flockmasters. For nearly a century the malady has been witnessed on the Continent, where it has been studied—experimentally and clinically—by masters of the Veterinary Art. In this country also, for nearly as long, the best authorities on sheep have described a contagious form of Foot-rot. It is true that one or two persons have denied the existence of such a malady, and assert that it is only Foot-and-mouth Disease in these animals. But they forget that this Contagious Foot-rot was seen in England many years before the latter malady reached us, and that it is prevalent in countries into which the Foot-and-mouth Disease has not yet been imported. Randall, in his excellent work on "American Sheep," describes it, and gives examples of its undoubted contagiousness. Professor Law, of the Cornell University, in the VETERINARY JOURNAL for September, 1876 (p. 161), in an excellent article on this subject, furnishes American evidence which should convince all, except those curious individuals of limited experience who are beyond conviction on pretty well everything. It is not improbable that the American sheep which were lately condemned at Liverpool as affected with Foot-and-mouth Disease, were really suffering from Contagious Foot-rot, as no cattle or pigs showing symptoms of the former malady have been received from the States; and these animals are more susceptible than sheep, and readily receive the Foot-and-mouth Disease from them, either mediately or immediately. That the Contagious Foot-rot should be included in the small list of maladies recognised in the Contagious Diseases Act, has for many years been our opinion; and with this object we devoted a section to its consideration in "Veterinary Sanitary Science and Police" (vol. ii., p. 351). The Tunbridge Wells Club were of the same opinion, and applied to

the Veterinary Department of the Privy Council, but they were informed that there were insurmountable obstacles—in other words, that the Department could not be bothered with them or any more contagious diseases. Agriculturists, in the matter of contagious diseases among animals, must still continue under the influence of a *laisser aller* policy and eccentric notions of infectious maladies.

INOCULATION FOR CONTAGIOUS PLEURO-PNEUMONIA IN HOLLAND.

In the Editorial of our last issue, we announced that Contagious Pleuro-pneumonia had been nearly, if not altogether, extinguished in Holland a few months ago, and that this happy result was ascribed to inoculation of suspected, no less than to the destruction of diseased cattle. The inoculation was compulsory only on infected farms or in infected sheds, the Minister of the Interior designating those districts or *cercles* in South Holland within which the operation was to be practised. These *cercles* comprised seventeen communes, and four veterinary surgeons were told off to assist the district veterinarian of La Haye in carrying out the measure. We now learn that between September 22nd and December 31st, 1879, no fewer than 34,784 cattle were inoculated, and that the mortality resulting therefrom was only 112, or 0·32 per cent. As the inoculations appear to have been most effectively performed, this loss is remarkably small.

CLAUDE BOURGELAT.

On the 30th of last October, a magnificent marble statue of Claude Bourgelat was uncovered at the Alfort Veterinary School, Paris, in the presence of a large assemblage of the Continental veterinary profession, and the principal civic and political representatives of the French capital, as well as those of general science, medicine, commerce, and agriculture. M. Bouley, of the Institute, and Inspector-General of the French Veterinary Schools, presided in the unavoidable absence of the Minister of Agriculture. Nearly all the Continental veterinary schools either sent representatives or addresses on the auspicious event, and the memory of the illustrious founder of veterinary science was honoured, not only in these, but in the eloquent speeches delivered by Bouley, Barron, and Thierry. In the evening a banquet was held at the Grand Hôtel, Paris. British veterinary medicine was conspicuous by its total absence, and in the list of subscribers to the statue—a list which included the schools and representatives of the profession in every country, as every country has benefited by Bourgelat's genius—there is only the name of one English veterinary surgeon. Yet a Frenchman and pupil of Bourgelat's—Charles Vial de Saint-Bel—started the Camden Town School, and did what he could to introduce veterinary science into this country. Truly our gratitude is not overwhelming, and our insularity, beneficial so far as national defence goes, does not appear conducive to the growth or manifestation of generous impulses or the development of science in our profession on this side of the channel. Even the Germans, so lately at war with their neighbours on the other bank of the Rhine, did not forget their good manners on this occasion, and honourably acknowledged their debt of gratitude to the great Frenchman whose efforts and example have benefited the whole world, while they have shed lustre on his beloved France.

Proceedings of Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

SPECIAL MEETING OF THE COUNCIL, HELD NOVEMBER 21ST, 1879.

PRESENT—Professors Pritchard and Axe; Messrs. Anderton, Batt, Cartwright, Collins, Dray, Fleming, Freeman; General Sir F. Fitzwygram; Messrs. Greaves, Harpley, and the Secretary.

In the absence of Professor Williams, the President, through domestic affliction, Mr. Dray (senior Vice-President) took the chair.

The SECRETARY read the notice convening the meeting.

The minutes of last meeting were read and confirmed.

The SECRETARY stated that letters had been received from the President, Professors McCall, Walley, and Messrs. George Morgan and P. Taylor, of Manchester, regretting their inability to attend the meeting.

The SECRETARY stated that "Strangeway's Veterinary Anatomy," edited by Professor Vaughan, F.L.S., of the New Veterinary College, Edinburgh, had been presented to the library of the College by the author.

On the motion of Mr. CARTWRIGHT, seconded by Mr. BATT, a vote of thanks was accorded for the presentation.

The SECRETARY read a series of letters between the President, Mr. Loch, and Mr. Thomas Moore, in reference to a requisition sent by Mr. Moore, signed by twenty members of the profession, asking the Council to call a meeting of the members of the College, for the purpose of considering the advisability of requesting the Governors of the Royal Veterinary College to revise their system of subscriptions.

The following is a copy of the requisition :—

"TO THE PRESIDENT OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

"10, Red Lion Square, W.C.

"SIR,—We, the undersigned Fellows and Members of the Royal College of Veterinary Surgeons, hereby request you to call a general meeting of members of the College, as provided by the charter and bye-laws, to take into consideration the advisability of requesting the Governors of the Royal Veterinary College to revise their system of subscription, and to make the practice of the institution less competitive to private practitioners, which, in the opinion of your requisitionists, is a source of injury to the profession. Dated November first, Eighteen hundred and seventy-nine."

Some conversation having taken place as to the informality of the notice, and as to whether the Council could, in conformity with the bye-laws and the charter, accede to the terms of the requisition,

General Sir F. FITZWYGRAM said it seemed to him desirable to waive any informality in the notice, and to discuss the main question, which, he thought, was whether the Council, at a general meeting had power to discuss any matter unconnected with what might be called the affairs of the College. The only question before the Council was whether it was legal to do so, or whether they had the power to do so. It seemed to him, as Mr. Loch had stated, that the Council had no power to do anything of the sort, and he thought it desirable that the meeting should be adjourned for the purpose of taking the advice of an eminent counsel, as to whether the Council had any power in the matter at all. Of course, all things that concerned the four walls of the College, such as examinations, etc., the charter said the Council had the regulation of; but he thought it refused to them any control over the operation of fees, etc., in schools; and he very much doubted whether

the Veterinary Department of the Privy Council, but they were informed that there were insurmountable obstacles—in other words, that the Department could not be bothered with them or any more contagious diseases. Agriculturists, in the matter of contagious diseases among animals, must still continue under the influence of a *laisser aller* policy and eccentric notions of infectious maladies.

INOCULATION FOR CONTAGIOUS PLEURO-PNEUMONIA IN HOLLAND.

In the Editorial of our last issue, we announced that Contagious Pleuro-pneumonia had been nearly, if not altogether, extinguished in Holland a few months ago, and that this happy result was ascribed to inoculation of suspected, no less than to the destruction of diseased cattle. The inoculation was compulsory only on infected farms or in infected sheds, the Minister of the Interior designating those districts or *cercles* in South Holland within which the operation was to be practised. These *cercles* comprised seventeen communes, and four veterinary surgeons were told off to assist the district veterinarian of La Haye in carrying out the measure. We now learn that between September 22nd and December 31st, 1879, no fewer than 34,784 cattle were inoculated, and that the mortality resulting therefrom was only 112, or 0·32 per cent. As the inoculations appear to have been most effectively performed, this loss is remarkably small.

CLAUDE BOURGELAT.

On the 30th of last October, a magnificent marble statue of Claude Bourgelat was uncovered at the Alfort Veterinary School, Paris, in the presence of a large assemblage of the Continental veterinary profession, and the principal civic and political representatives of the French capital, as well as those of general science, medicine, commerce, and agriculture. M. Bouley, of the Institute, and Inspector-General of the French Veterinary Schools, presided in the unavoidable absence of the Minister of Agriculture. Nearly all the Continental veterinary schools either sent representatives or addresses on the auspicious event, and the memory of the illustrious founder of veterinary science was honoured, not only in these, but in the eloquent speeches delivered by Bouley, Barron, and Thierry. In the evening a banquet was held at the Grand Hôtel, Paris. British veterinary medicine was conspicuous by its total absence, and in the list of subscribers to the statue—a list which included the schools and representatives of the profession in every country, as every country has benefited by Bourgelat's genius—there is only the name of one English veterinary surgeon. Yet a Frenchman and pupil of Bourgelat's—Charles Vial de Saint-Bel—started the Camden Town School, and did what he could to introduce veterinary science into this country. Truly our gratitude is not overwhelming, and our insularity, beneficial so far as national defence goes, does not appear conducive to the growth or manifestation of generous impulses or the development of science in our profession on this side of the channel. Even the Germans, so lately at war with their neighbours on the other bank of the Rhine, did not forget their good manners on this occasion, and honourably acknowledged their debt of gratitude to the great Frenchman whose efforts and example have benefited the whole world, while they have shed lustre on his beloved France.

Proceedings of Veterinary Medical Societies, etc.

ROYAL COLLEGE OF VETERINARY SURGEONS.

SPECIAL MEETING OF THE COUNCIL, HELD NOVEMBER 21ST, 1879.

PRESENT—Professors Pritchard and Axe; Messrs. Anderton, Batt, Cartwright, Collins, Dray, Fleming, Freeman; General Sir F. Fitzwygram; Messrs. Greaves, Harpley, and the Secretary.

In the absence of Professor Williams, the President, through domestic affliction, Mr. Dray (senior Vice-President) took the chair.

The SECRETARY read the notice convening the meeting.

The minutes of last meeting were read and confirmed.

The SECRETARY stated that letters had been received from the President, Professors McCall, Walley, and Messrs. George Morgan and P. Taylor, of Manchester, regretting their inability to attend the meeting.

The SECRETARY stated that "Strangeway's Veterinary Anatomy," edited by Professor Vaughan, F.L.S., of the New Veterinary College, Edinburgh, had been presented to the library of the College by the author.

On the motion of Mr. CARTWRIGHT, seconded by Mr. BATT, a vote of thanks was accorded for the presentation.

The SECRETARY read a series of letters between the President, Mr. Loch, and Mr. Thomas Moore, in reference to a requisition sent by Mr. Moore, signed by twenty members of the profession, asking the Council to call a meeting of the members of the College, for the purpose of considering the advisability of requesting the Governors of the Royal Veterinary College to revise their system of subscriptions.

The following is a copy of the requisition :—

"TO THE PRESIDENT OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

"10, Red Lion Square, W.C.

"SIR,—We, the undersigned Fellows and Members of the Royal College of Veterinary Surgeons, hereby request you to call a general meeting of members of the College, as provided by the charter and bye-laws, to take into consideration the advisability of requesting the Governors of the Royal Veterinary College to revise their system of subscription, and to make the practice of the institution less competitive to private practitioners, which, in the opinion of your requisitionists, is a source of injury to the profession. Dated November first, Eighteen hundred and seventy-nine."

Some conversation having taken place as to the informality of the notice, and as to whether the Council could, in conformity with the bye-laws and the charter, accede to the terms of the requisition,

General Sir F. FITZWYGRAM said it seemed to him desirable to waive any informality in the notice, and to discuss the main question, which, he thought, was whether the Council, at a general meeting had power to discuss any matter unconnected with what might be called the affairs of the College. The only question before the Council was whether it was legal to do so, or whether they had the power to do so. It seemed to him, as Mr. Loch had stated, that the Council had no power to do anything of the sort, and he thought it desirable that the meeting should be adjourned for the purpose of taking the advice of an eminent counsel, as to whether the Council had any power in the matter at all. Of course, all things that concerned the four walls of the College, such as examinations, etc., the charter said the Council had the regulation of; but he thought it refused to them any control over the operation of fees, etc., in schools; and he very much doubted whether

the meeting could be called for the purpose indicated. He, therefore, moved that the Council should obtain the advice of some eminent counsel as to whether they could act in the matter or not. His own opinion was that they had no power to act at all.

Mr. BATT seconded the motion.

Mr. FLEMING pointed out that, according to the bye-law, when a petition had been received by the Council, signed by a certain number of members of the profession, to call a general meeting, the meeting must be called.

Sir F. FITZWYGRAM said that there were certain things *ultra vires*, and the meeting might be called for a purpose totally unconnected with the matters pertaining to the Council.

Mr. FLEMING said that was no doubt the case; but he did not think that twenty members of the profession would appeal to the Council to hold a meeting if it were not for the purpose of considering a subject connected with the profession. The present meeting was not the occasion, he presumed, to discuss the object of the general meeting, but only to grant or refuse the prayer of the petitioners.

Prof. AXE expressed his opinion that anything which did not pertain to the importance of the veterinary art or the science of veterinary medicine, did not come within the cognisance of the Society, and the question to be discussed at the meeting seemed to be a question entirely beside that. He therefore suggested that the question should not be taken into consideration.

Mr. COLLINS suggested as a compromise that the meeting should be allowed to assemble, because at present the Council did not know what the proposals were, and they ought to hear what was said. The opinion of counsel could then be taken afterwards.

Prof. AXE remarked that the precise object of the proposed meeting was specifically set forth in the circular convening the present meeting of Council.

The CHAIRMAN hoped that General Fitzwygram's motion would be carried.

Mr. GREAVES thought the Council had no power in the matter, and that it rested entirely with the President, according to the rules, to call the meeting in accordance with the requisition. He would support the course suggested by Sir Frederick Fitzwygram, to obtain counsel's opinion on the matter. At the same time, he thought the grievance—as the petitioners had called it—ought to be ventilated more than it had been, as it might then be looked at in quite a different light from what it was at present, and some reasonable concession might be made which would satisfy everybody, and be an advantage to the profession.

Mr. FLEMING again urged that the Council had no option but to call the meeting, because, in his opinion, the petition was perfectly formal and proper.

Mr. ANDERTON supported Mr. Fleming's view, that the requisition should be entertained, and said he was willing to second an amendment to that effect.

After some further observations from Mr. Fleming, Professor Axe, and Mr. Greaves,

The CHAIRMAN put Sir Frederick's motion to the meeting, which was carried unanimously.*

The SECRETARY was then instructed to write to Mr. Loch, to nominate some eminent Queen's counsel to give his opinion on the subject, and that the same, when obtained, should be laid before the Council.

* This is an error.—ED. *V. J.*

House Committee.

The report of the above Committee stated that, at a meeting held on October 27th, it was resolved to appoint Mr. George Greenwood, of Southampton Row, to survey and report upon the value of the property at 16, Fitzroy Square, and that an advertisement be inserted in the *Times*, *Builder*, and *Standard* in reference to the purchase of a suitable property.

The report of the surveyor, which was read to the Council, stated that he surveyed the property, and was of opinion that it was worth, in its present repair, £2,750, and that the house would require, for the occupation of a family, re-decorating; also that the stables and coach-houses were small and required repairing.

The SECRETARY stated that, having placed himself in communication with the President, he received a letter from Messrs. Whyte, Collisson, and Prichard, dated 21st October, stating that there were applications from another gentleman, who desired to have the property, and requesting a definite answer as to the decision of the Council within a week of the date of he letter.

A reply was sent, to the effect that the Council did not wish to stand in the way of any available offer being made to them.

The SECRETARY read the replies to the advertisements that had been inserted in the newspapers.

Mr. COLLINS said that the replies to the advertisements had been very few. He had gone over them all, and none of them appeared to be at all satisfactory. At the commencement of the year a deputation waited upon the Duke of Richmond on the question of getting some pecuniary grant from Government, and he promised to take it into consideration. Last week Mr. Fleming and himself had called at the Privy Council Office, and saw the Clerk of the Council, who advised them to write a letter, which they did, stating the claims of the profession on the country. A reply was sent, stating that His Grace did not seem to think there would be any use in applying to Government for pecuniary assistance at the present juncture. It only remained—unless the Council wanted to go on with the purchase of the house in Fitzroy Square, if it had not already been disposed of—for the House Committee to look around and see if there were any other suitable buildings. There was also a desirable building in Bedford Square, but it was found that to purchase it at present would be out of the question. He thought the Council should stick to the money they had until more was added to it, and by-and-bye they might obtain the building they required.

In reply to Sir F. Fitzwygram,

The SECRETARY stated that the price of the house at 16, Fitzroy Square was 4,000 guineas, and that possession could be obtained at any time.

Mr. FLEMING thought that the house in Fitzroy Square would not be an eligible one. There was not sufficient accommodation internally, and the locality was a tumble-down one, with a bad character. The house in Bedford Square was the best he had seen in London. It had a capital frontage, and was in every respect the best that could be found for the purposes of the College. The agent told him that the house would only be let on lease, and that he was in treaty with a party about to purchase it. He (Mr. Fleming) pointed out, in a letter to the Duke of Bedford, that the building was a suitable one, but that they were a poor profession, and had not money to buy new premises; and by the same post he had written to Col. Kingscote, asking him to use his influence with His Grace. He afterwards received a letter from the Duke, stating that he had referred the matter to his agent in London, at the same time remarking that the inhabitants in the square would

not like a public building in their midst. He was not satisfied, and applied again to the Duke, who said he had no choice in the matter but to leave it to his agent, as he was responsible. He thought the only course now open was an appeal to the public through the House of Commons, because he thought the position of the profession at present was a disgace to the country. He thought the way in which they had been allowed to toil and struggle did not reflect credit on a great country like ours. If the public knew the position in which the profession was placed, and what was done for other public bodies, which did not render so much service, he was quite sure they would consider their prayer, and grant them a proper building. He felt almost convinced that some members of the House of Commons, who were very much in favour of the profession, and had such a large stake in the interests of the country, would gladly bring forward and support any motion which had for its object assisting the profession in this matter. He should not like the Council to leave the present building until they had something superior to enter into.

Mr. GREAVES said he was sure that nobody wished to see the profession raised so high as Mr. Fleming did. Neither the Government nor Parliament would respond to their call, and they must, therefore, rely upon what they were, and be content to be modest in their expectations and reasonable in their demands. He counselled the purchase of the house in Fitzroy Square as being suitable for the purposes of the Council, and moved a resolution to the effect that some member of the House Committee be authorised to wait upon the agents for the purpose of negociating for such purchase, and to offer £3,000.

Mr. FREEMAN seconded the resolution.

Sir FREDERICK FITZWYGRAM said that, without advocating the purchase of the house in particular, if the Council wanted a good and cheap house they could not have it in a fashionable locality, and it ought to be remembered that the instructions of the House Committee were to get a house somewhat north of the present one, and between it and the Royal Veterinary College, for the advantage of the students : and he thought it would be admitted that there was scarcely a fashionable locality between Red Lion Square and St. Pancras.

Mr. FLEMING said he meant, not a fashionable locality, but a respectable locality. He begged to move, as an amendment to Mr. Greaves' motion, that no steps be taken for the purchase of the house until further attempts had been made to receive assistance.

Prof. AXE seconded the motion, believing that the time was not far distant when they would be able to obtain a considerable amount of political influence to bear on the demands by the profession for pecuniary assistance. He thought it better to defer the matter for the present, as he felt sure that by-and-bye they would be in a position to purchase such a property as would not only give satisfaction to, but also bring credit on, the profession.

Mr. Fleming's amendment was then put to the meeting, and lost, and Mr. Greaves' motion was put, and declared carried.

Mr. HARPLEY said he should not have voted for Mr. Greaves' motion if he had thought that a price was to be stated. He was of opinion that the matter should be referred to the next quarterly meeting, and that in the meantime the Secretary or the House Committee be instructed to ask what price the house could be purchased at.

Mr. GREAVES said he would withdraw his former proposition, and propose that the House Committee be instructed to have an interview with the agents for the house in Fitzroy Square, and ascertain the lowest price at which it could be purchased.

Mr. FREEMAN seconded the motion, which was carried.

The SECRETARY then read a letter, dated Nov. 18th, 1879, from the surveyor to the estate, asking for some additional improvements to be made on the premises 10, Red Lion Square.

After some conversation, it was resolved to allow the letter to lie on the table.

A letter was received from Mrs. Green-Armytage, Northlands, Bournemouth, stating that her son, in an engagement in the Zulu War, had lost his diploma, and asking that it be renewed.

The SECRETARY stated that he had sent a reply, to the effect that the gentleman in question ought to make his own personal application.

The SECRETARY read the following letter from Dr. Dunsmure, relative to an application made to him for refunding fees which were said to be overcharged.

"Mr. A. McKenzie,
"6, Lute Street, Aberdeen.

"Edinburgh, November 8th, 1879.

"SIR,—You are quite right in stating that the fee for the diploma of the Royal College of Veterinary Surgeons is £10 10s.

"The bye-laws of the College enact that every rejected student, before re-examination, must pay a fee of three guineas.

"In July, 1877, you paid £7 7s.; you were rejected, and consequently paid three guineas when you came up a second time for your minor, in January, 1878. You then paid, or should have paid, one guinea for registration, that made eight of the ten guineas.

"In January, 1879, you paid three guineas instead of two, from your not having told me that you were under the old rules; but, as you were rejected, you only paid two in April instead of three, thus making ten guineas for the diploma and the remainder for your re-examinations.

"(Signed) JAMES DUNSMURE."

On the suggestion of Sir F. FITZWYGRAM, the Secretary was instructed to reply to Dr. Dunsmure, to the effect that the legal decision was that only those fees which were received for successful candidates contributed towards the diploma. In consequence of that decision a bye-law was drawn up charging three guineas for each unsuccessful candidate. Previously they came up for nothing, and in consequence of this the College was nearly insolvent.

Mr. FLEMING incidentally pointed out the necessity of the bye-laws being in accordance with the charter. He thought that bye-laws drawn up so obscurely, so that nobody could understand them without the aid of a lawyer, required much amendment. The charter would almost mislead any one with regard to the fees for examination and the diploma.

The SECRETARY stated that a letter had been received from Mr. F. Payne, Devizes, and another from Mr. W. B. Fretwell, both rejected candidates. They had presented themselves three different times and were rejected, and wished to know whether they could again present themselves for re-examination.

After some discussion as to the merits of the two cases, and as to the bearing which Bye-law 34 had upon them, the Council came to the opinion that the two applicants were ineligible to present themselves at Christmas, and that they would have to recommence their studies before presenting themselves before the Board of Examiners.

Mr. HARPLEY said he had received a letter from the Secretary of the Royal Agricultural Society, asking what steps the Council proposed to take with reference to their prizes. It would be remembered that these had not been competed for by a sufficient number of old students from the Royal

Veterinary College at Camden Town, and it was in contemplation to have some additional rules framed, so that the competition might be open to all the students of the United Kingdom. Mr. Jenkins was anxious to place the scheme before the Royal Agricultural Society, and had asked him (Mr. Harpley) for information on the subject. He was not himself in possession of any information, but as he did not wish the matter to remain in abeyance, he should be glad if the Council would give him any information on this important subject, so that he should be able to communicate with Mr. Jenkins.

The SECRETARY announced a list of fifty-three applicants for the diploma of the Royal College of Veterinary Surgeons, who hold the Highland and Agricultural Society's certificate, each certificate having been verified by the principals of the various colleges.

It was agreed that the diploma be granted to the applicants, and that their names be published in the two veterinary journals.

The SECRETARY was instructed to write to the principals of each college, asking what time it would be most convenient for them to hold the examinations in London and Scotland.

Cheques were ordered to be drawn for the current expenses at the Christmas examinations and insurances. This concluded the business of the first special meeting.

A SECOND SPECIAL MEETING

was then held, to consider the alteration of Bye-law No. 7, of which notice had been given by Sir F. Fitzwygram at a previous meeting. The effect of the alteration was to appoint at a meeting prior to the annual meeting, not less than six members of the profession to act as scrutineers in the matter of the election of members of the Council, instead of at the annual meeting; the object being to dispose of the scrutineering business practically before the general meeting of the Council, and thus allow the scrutineers to take part in the proceedings.

Mr. GREAVES seconded the motion, which was carried.

The bye-law, as altered, will read as follows:—

"At a meeting prior to the annual meeting, the Council shall choose from among the members of the profession not less than six persons to act as scrutineers, in the matter of the election of members of Council."

Alteration of Bye-law 4.

Mr. COLLINS moved the alteration of the above bye-law, notice of which had been given at a previous meeting. The object of the alteration was to admit of those veterinary surgeons who were practising abroad in the army having a voice in the voting for members of the Council.

The bye-law, as amended, would read:—

Add after the words "Every member," "in the United Kingdom," and the words "in the case of members resident abroad it will suffice if they forward to the Secretary, on the prescribed form, so as to reach him seven clear days prior to the election, the names of not more than six gentlemen for whom they wish to vote."

Mr. FLEMING seconded the motion.

In answer to the Secretary,

Mr. COLLINS said it was in no way intended to make it compulsory on the part of the Secretary to send the forms unless they were applied for.

The motion was put and carried, and it was also agreed that the Secretary be instructed to send the blank forms through the Principal Veterinary Surgeon to the Army, to all the veterinary surgeons abroad.

Sir FREDERICK FITZWYGRAM submitted a scheme for a general matricu-

lation examination for all the schools. As regards the London school there was no objection to the scheme, nor had Prof. Williams and Prof. McCall any objection to it; and he had received a letter from Prof. Walley, from which it appeared that the scheme was accepted by the trustees of the Edinburgh school with some modifications.

A committee was, on the motion of Sir F. FITZWYGRAM, seconded by the CHAIRMAN, appointed, to endeavour to adjust some general scheme.

The names of the committee appointed are, Mr. Collins, Sir F. Fitzwygram, Mr. Fleming, and Mr. Robertson, of Kelso.

On the motion of Mr. GREAVES, the best thanks of the Council were awarded to Sir F. Fitzwygram for his exertions in the matter, and the Council adjourned.

CENTRAL VETERINARY MEDICAL SOCIETY.

AT the ordinary meeting held at Red Lion Square on November 6th, Mr. Fleming, Vice-President in the chair, it was intimated that the President, Mr. H. T. Batt, had declined the office, but it was hoped he would reconsider the matter. A specimen of urine from a horse affected with Azoturia, and forwarded by Mr. Tailby, was shown, and a letter detailing the history of the case was read. The CHAIRMAN remarked that the disease was a very rare one among army horses, and he could only recollect three cases occurring among them. The name "Azoturia" was very inappropriate, as nitrogen, or azote, was a normal constituent of the urine. It was a designation given very many years ago to a kind of Chronic Diuresis in man, characterised by the presence of an excess of urea in the urine. This was not the case in the disease under consideration, and there was no Diuresis. If a name was to be given to the disease from the condition of the urine, it should be Hæmaturia, or better still, Hæmoglobinuria, as when the urine was examined by means of the spectroscope it gave the well-defined bands of hæmoglobin. He described the appearances and chemical composition of the urine, and alluded to its being a disease closely related to deranged digestion and assimilation. Instead of the condition being due to an excess of urea in the urine, as the name given to it would imply, it would appear to be caused by retention of urea. Few, if any, blood-corpuscles were found in the urine, only the hæmoglobin; but where the change took place was uncertain. The onset of the malady was sudden, and recovery generally as rapid.

Mr. MOLE said Mr. Hopkin, of Manchester, told him that he rarely lost a case if he could get the bowels to act. He applied hot water to the loins, gave purgatives, and kept the animal comfortable.

The CHAIRMAN described a case he saw at Aldershot. The animal was an army horse, and it died. He found the liver in a fatty condition, its capsule very easily stripped off, and the visible mucous membranes of a deep yellow colour. The kidneys were large, and the small veins plugged with clots. The horse died within three days after being attacked.

Mr. BURRELL, junr., said that, as a rule, in the disease there was a loss of power in one of the hind limbs. He attributed the disease to the horse being fed too freely while resting for two or three days. Immediately before an attack the animal was always in excellent spirits, and people would remark they never knew it to be so lively. But after proceeding a mile or two the symptoms appeared; there was profuse sweating, great distress, with lameness of one of the hind legs. The symptoms did not manifest themselves until the horse was exercised and the circulation increased. He did not recommend the employment of slings. It had been asserted the disease only affected mares, but he had seen it in geldings. He usually gave small doses of belladonna. The action of the kidneys must be kept up. When

not slung and tolerably quiet, a small dose of laxative medicine does good sometimes—it is unwise to give a full dose. The urine should be examined as soon as passed, as it soon generates ammonia.

Mr. STEEL considered Mr. Fleming's observation as to the condition of the liver, one of importance, and he would be glad if other observers could describe the condition of that organ. The alteration in the blood might be due to the bile salts in it.

Mr. SHAW agreed with Mr. Burrell in his remarks with regard to sedatives. His son had then two cases in which he gave nothing but sedatives until recovery took place. He gave belladonna twice a day.

The CHAIRMAN regretted Mr. Daniell was not present, as he had had a great number of cases, and at one time was not very successful, though now he was more so. He relied upon purgative medicines and aconite in the first instance. He, the Chairman, dwelt upon the peculiar symptoms which marked the disease.

Mr. ATKINSON had seen some twenty or thirty cases within the last three or four months among the tramway horses. He thought the best thing to do was to get the animal to the nearest stable and put it in slings. Since the strong purgative system and slinging had been adopted, not a case had been lost. He advised slinging being tried. He gave no sedative, but a brisk stimulant. Recovery generally took place in about twenty-four hours.

The CHAIRMAN pointed out that many very successful practitioners were averse to slinging, and that the slings often did harm, in some cases breaking the tail.

Mr. GERRARD was of opinion that slinging did harm; those horses he had slung never recovered. A good bed and occasional turning over is better.

Mr. BURRELL thought that unless the horse was allowed to stand when in the slings, he frequently became suffocated. On the second or third day, when able to stand, it was better to allow him to do so. Sometimes the abdominal muscles were injured. In one case the owner had seen the horse stand, and insisted on having him slung. This was done, and it died from suffocation within a couple of hours.

Mr. HANCOCK believed slings did more harm than good, unless the limbs could sustain some portion of the weight.

Mr. GERRARD exhibited a rupture of the wall of the right ventricle of the heart, from a large eight-years'-old horse. While drawing a heavy load up a steep hill it fell down and died. The pericardium was also ruptured.

He also showed a specimen of ruptured intestine, the history of which he related. Comments were made upon it by the Chairman.

A case of *Ectopia Cordis* in a calf, with extreme contortion of the spine, was exhibited by Mr. BANHAM. It was forwarded by Mr. Wilson, of Nantwich. Particulars of the case will be published in the VETERINARY JOURNAL.

Mr. A. BROAD introduced a mirror devised to enable the nostril to be examined with safety in cases of Glanders. Various members gave their opinion as to its utility.

The SECRETARY announced that Mr. Henry Surmon was proposed as a Fellow.

Mr. HUNTING announced his intention of introducing the subject of Colic in reference to treatment at the next meeting.

Votes of thanks were accorded to the gentlemen who had introduced subjects and specimens. Present sixteen Fellows. J. ROWE, *Secretary.*

YORKSHIRE VETERINARY MEDICAL SOCIETY.

THE concluding quarterly meeting for 1879 was held at the Queen's Hotel, Leeds, on October 30th. The President, Mr. Peter Walker, in the chair. The

following members were present—Messrs. Naylor, Freeman, James Greaves, Carter, J. S. Anderton, Cuthbert, Patterson, Parlane Walker, Schofield, W. G. Lodge, Murdoch, Beeson, Atcherley, Scriven, Deighton, Ferguson, and the Secretary. Dr. Goldie, medical officer for the borough of Leeds, and Mr. Robertson, M.R.C.V.S., were present as visitors. Excuses for non-attendance were received from Messrs. Dray, Fallding, Pratt, Danby, Joseph and John Freeman, J. L. Faulkner.

The minutes of the previous meeting were read and confirmed.

Mr. PARLANE WALKER proposed, and Mr. SCHOFIELD seconded, that John Nettleton, M.R.C.V.S., Northallerton, be elected a member of the Society—carried unanimously.

Mr. DEIGHTON nominated Mr. George Hardie, M.R.C.V.S., York.

Mr. BEESON desired to know the opinion of members as to "whether a well-defined Splint could be formed in twelve days." Several members expressed their opinion that an ossific deposit at the seat of Splint could be formed in that short space of time, either as the result of concussion, or from the effect of a blow from the opposite foot.

Mr. FERGUSON read an essay on "Swine Fever," hitherto termed the "Typhoid Fever of Swine." The essayist minutely described the symptoms of this virulent epizootic, as observed by him during the existence of an outbreak in the borough of Leeds during the past summer. The malady existed in two forms, viz., the typhoidal and anthracoid, the latter being the most virulent and quickly fatal. A number of morbid specimens illustrating the ravages of the disease in the skin, lungs, liver, stomach, and intestines, were exhibited and explained by Dr. Goldie, the medical officer of Leeds, who had taken great interest in stamping out the late outbreak. The principal topic of discussion was the cause of the Fever.

Mr. Greaves and some other gentlemen favoured the opinion that fermentative food was in all probability frequently a cause; other gentlemen said the causes of the disease were yet enshrouded in mystery. Amongst the gentlemen who took part in the debate were Messrs. Parlane Walker, Schofield, Freeman, Beeson, Greaves, Naylor, Patterson, Carter, and Dr. Goldie.

Mr. BROUGHTON proposed, and Mr. NAYLOR seconded, a most cordial vote of thanks to Mr. Ferguson and Dr. Goldie—carried unanimously.

The TREASURER submitted the financial statement for the year, shewing credit at the bankers for £92 7s. 4d.

The PRESIDENT proposed, and Mr. PARLANE WALKER seconded, that Mr. W. G. Schofield, Pontefract, be the President for 1880—carried unanimously.

Messrs. P. Walker, ex-President, Naylor, and Lodge were elected Vice-Presidents.

The Secretary and Treasurer were re-elected.

A unanimous vote of thanks was awarded to Mr. Peter Walker for his efficient conduct as President—carried.

MONTREAL VETERINARY MEDICAL ASSOCIATION.

THE fortnightly meeting of the Montreal Veterinary Medical Association was held in the lecture-room of the college, on November the 20th Professor McEachran in the chair.

Mr. PETER CUMMINGS read his communication on Superficial Necrosis of the Os Pedis. He described the case in full detail. The reading of the same was listened to with great interest by those present.

Mr. CHARLES ORMOND, of Milwaukee, read a very interesting paper on Bone Spavin, in which he evinced a more than common knowledge of the

nature of this disease, the causes on which it depends, and the changes that take place in the joint. In his treatment he described a method much practised by his father, Mr. W. M. Ormond, of Milwaukee, by which he claimed to be more than ordinarily successful in restoring the animal to usefulness, viz., cauterization of the joint by a pointed hot iron, inserted between the bones, by which anchylosis was produced.

A most animated discussion followed, in which the whole question was fully and intelligently discussed ; the majority favouring, as more rational, the plan taught by the President, of firing and blistering completely around the joint.

The notorious prevalence of Spavin in horses in Canada, especially in the poorer parishes, where proper attention is not paid to the selection of breeding stock, was fully commented upon. Where spavined horses or mares are used for breeding, this disease if very common, and the losses entailed by rearing worthless animals are incalculable. Too much cannot be said to urge farmers to stop breeding from unsound animals.

The meeting was one of unusual interest.

The next papers to be read, on December 3rd, are on Tuberculosis in Cattle, by Mr. William McEachran, and one on Veterinary Dentistry, by Mr. J. B. Green, Ohio.

NEW MEMBERS OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

THE following candidates, holding the Highland and Agricultural Society's Certificate, have obtained the Diploma of the Royal College of Veterinary Surgeons :—

	Date of Certificate.
Aitken, David, Loughborough	1852.
Anderson, James, Glasgow	1867.
Bain, Peter, Kirriemuir	1863.
Baird, Colin C., Edinburgh	1852.
Bale, James, Otley, Yorkshire	1860.
Beattie, George, Longside, Aberdeenshire	1850.
Bell, John, Carlisle	1858.
Bell, Robert Thos., Bootle, Liverpool	1874.
Bissett, Benjamin Mitchell, Brechin, Forfar	1864.
Bland, George, Alfreton	1851.
Bulman, Robert, Morpeth, Northumberland	1866.
Burnett, John, Maybole, Ayr	1866.
Chalwin, Thomas, Adelaide, Australia	1853.
Connochie, James, Ayton, Berwick	1860.
Darwell, Albert Henry, Northwick, Cheshire	1874.
Dickie, James, Ayr	1859.
Dobbyn, James J., Waterford	1868.
Dobson, Thomas Chas., Southport	1872.
Doig, John, Wigtown	1850.
Edwards, Robt. Clowes, Chester	1867.
Gillespie, Alexander, Newcastle-on-Tyne	1861.
Going, James A., New York	1868.
Harrison, John, Buttergill, Penrith	1857.
Hart, James, Oldham	1873.
Hick, William, Fulford, York	1851.
Hodgson, Septimus, Grussonthen by Carlisle	1854.
Jack, Thomas, Sunderland	1865.
Jebson, James, Bishop Wilton, York	1854.

Kerr, Robert, Ballymena, Co. Antrim	1868.
Kerr, William, Dalry, Ayr	1861.
Lyman, Chas. Parker, Boston, U.S.	1874.
MacGillivray, Alex. Ewan, Banff	1866.
Malcolm, John, South Hetton, Durham	1878.
Martin, William, London	1872.
Mellis, Thomas, Inverurie, Aberdeenshire	1862.
Murray, James, Castle Town, Caithness	1876.
Pitt, John Edward, Birmingham	1857.
Poole, Henry Edward, Jersey	1878.
Prior, Thomas H., Parsonstown, King's Co.	1872.
Robinson, George, Chesterfield...	1871.
Robson, Joseph, Penrith...	1856.
Rutherford, Edward, Terrington, York	1877.
Rutherford, Richard, Edinburgh	1860.
Scymgeour, James, „	1866.
Snowball, Matthew, Huntly, Aberdeenshire	1853.
Unsworth, John Bell, Market Drayton	1856.
Fulton, David, Mullingar, Co. Westmeath	1859.
Keall, Robt. John, Epworth	1871.
MacCallum, Alex. Inglis, Edinburgh	1867.
Mitchell, Andrew, Stranraer	1850.
Pears, Joseph, Penrith	1860.
Potts, Leonard, Wigtown	1859.
Power, William, Tipperary	1877.

Army Veterinary Department.

Gazette, November 25th.

VETERINARY DEPARTMENT.—Veterinary Surgeon Edwin Thomas Cheesman, 5th Dragoon Guards, to be Veterinary Surgeon, First Class. Dated 20th November, 1879.

Gazette, December 5th.

VETERINARY DEPARTMENT.—The undermentioned Veterinary Surgeons on probation to be Veterinary Surgeons—A. W. Mason, E. Day, C. Rutherford, E. W. Goldsmith, K. Lees, A. D. Drake, F. W. Forsdyke.

Gazette, December 16th.

ROYAL ARTILLERY.—Veterinary Surgeon W. J. Masters is placed on temporary half-pay.

Government Gazette, Cape Town, August 18th.

CAPE MOUNTED RIFLEMEN.—Scott Dawkins, Esq., M.R.C.V.S., to be Veterinary Surgeon.

The following is the adaptation to the last Army Warrant, of the pay and allowances in India, which has been recently published there.

"In substitution of G.G.O. No. 504, of May 22nd, 1865, the Right Hon. the Governor-General of India in Council has notified the following revised scale of pay and allowances for veterinary surgeons serving in India :—

Rank.	Pay and Indian Allowances per mensem. Rs.	a.	p.	English Pay per diem. £	s.	d.
Principal Veterinary Surgeon in India	1,183	2	0	1	5	0
After 25 years' service	1,207	7	7	1	7	0
,, 30 ,, ,, ...	1,244	0	7	1	10	0
Inspecting Veterinary Surgeon...	1,000	15	0	1	5	0
After 25 years' service	1,025	4	7	1	7	0
,, 30 ,, ,, ...	1,061	13	0	1	10	0
Veterinary Surgeons, 1st Class	578	6	10	0	16	0
After 5 years' service as such	602	12	5	0	18	0
,, 10 ,, ,, ,, ...	627	2	0	1	0	0
,, 14 ,, ,, ,, ...	651	7	7	1	2	0
,, 30 years' total service	675	13	2	1	4	0
Veterinary Surgeon under 5 years' service ...	377	8	0	0	10	0
After 5 years' service	401	13	7	0	12	0
,, 10 ,, ,, ...	432	47		0	14	6

"The rates of pay and Indian allowances include horse allowance at 120 rupees for the Principal and Inspecting Veterinary Surgeons, 90 rupees for Veterinary Surgeons 1st Class, and 60 rupees for Veterinary Surgeons. The rates of English pay are only applicable to Veterinary Surgeons appointed before the issue of the Royal Warrant dated April 22nd, 1878. Those appointed on or after that date receive £250 a year. Officers of the Indian Veterinary Department who may now be drawing a higher rate of pay than that given in the above table, will continue to draw such rate till, by length of service, they obtain an increase of pay. The rates of pay sanctioned by this order will have effect from August 1st, 1879.—Allen Johnson, Colonel, Secretary to the Government of India."

Notes and News.

ALFORT VETERINARY SCHOOL.—According to the *Times'* Paris correspondent, this school is to be temporarily closed, as 220 of the 300 students broke out on Sunday, November 30th, and remained away until eleven p. m., when they smashed the windows on their return.

PROTECTIVE INOCULATION FOR CONTAGIOUS PLEURO-PNEUMONIA.—Perhaps the strongest evidence that was ever tendered on behalf of inoculation as protective of contagious Pleuro-pneumonia in cattle, was that offered, on October 31st, by the dairymen of Edinburgh, to Mr. R. Rutherford, M.R.C.V.S., when at a banquet given by these shrewd observers, he was presented with a valuable gold watch and chain, and a gold bracelet for Mrs. Rutherford, in recognition of the great boon he had conferred upon them "by his perseverance in introducing inoculation so successfully, not only in Edinburgh, but throughout Scotland." Many of the leading veterinary surgeons in Scotland were present.

RINDERPEST IN MADAGASCAR, MAURITIUS, AND JAVA.—We learn that the Cattle Plague has been making great havoc among the herds in the islands of Madagascar and Mauritius. In the latter island alone more than 11,000 have died and been destroyed in consequence of the malady, which is said to have been imported from India, where, according to the information published in the Journal from time to time, and particularly Mr. Queripel's excellent paper in our November issue, it has prevailed to a most serious extent. The disorder was carried from the Asiatic continent to Madagascar, thence to Mauritius, between which a large trade in cattle goes on. This trade also extends to Port Durban, Natal, between which and Madagascar there is frequent communication; so that South Africa—indeed the entire African

continent—runs great risk of being invaded by this most desolating scourge, from the ravages of which it has hitherto been exempt. We are glad to know, however, that the authorities at Durban have adopted certain precautions which, we trust, will be found sufficient to avert the introduction of such a redoubtable disorder. It would appear that, for more than a year, Cattle Plague has raged in a portion of the island of Java, where it appears to have been introduced from China. The provinces of Bantam and Batavia are more especially visited, and large sums of money have been already expended in attempts to suppress the contagion. These attempts, however, have only been partially successful, owing to the Oriental apathy of the Javanese, who do but little to second the energetic efforts of the Dutch Government and its veterinary police.

ANTHRAX IN SOUTH AFRICA.—It is reported that a disease, known to the Boers as *Milt-zeik* ("Splenic Apoplexy"), is just now proving very fatal to horses in the Transvaal. Horses attacked by it die suddenly, without any premonitory loss of condition or appetite. It is stated to be quite distinct from the epizoöty known as the South African Horse-sickness.

FRENCH ARMY HORSES.—The *Broad Arrow* remarks that the wear-and-tear of horse-flesh must be a formidable item in French military expenditure. There are eight times as many army horses employed in France and Algeria as in the United Kingdom, and the wear-and-tear appears to be in a much higher ratio. The mortality alone is 50 per cent. higher than in either the English or the German army, according to the showing of *L'Armée Militaire*.

CATTLE PLAGUE ON THE CONTINENT.—We learn that this disease has again broken out violently in the city and district of Warsaw, about 130 head of cattle having been slaughtered. In the district of Sochaczew the scourge has also been making great ravages, and the most stringent measures have had to be adopted. It prevails in thirty-four localities in Carinthia and nine in Styria, and one case has been discovered in the Vienna market. Its ravages are also experienced in Croatia and Slavonia, as well as several provinces in Russia.

THE ETIOLOGY OF ANTHRAX.—M. Pasteur, at a recent meeting of the Academie de Médécine in Paris, stated that a sheep died of Anthrax in a field in the department of Eure-et-Loire, at some distance from any knacker's establishment. The shepherd therefore dug a hole in the ground, and buried this anthracoid sheep. The next year the surface of the ground teemed with millions of germs. In a counter-experiment, M. Pasteur allowed some anthracoid blood to fall on the ground; it became changed into germs, which could be taken out of the earth a year afterwards. He asks how, in face of such facts, it is possible to retain any doubt as to the veritable origin of Anthrax in the department.

RABIES IN THE WEST OF ENGLAND.—The *Dorset Chronicle* says that Rabies has extended to the kennels of the Devon and Somerset staghounds. The pack had been got together to replace a former pack which were destroyed, owing to the appearance of Rabies among the dogs, and now it is feared the present pack will meet the same fate.

CONTAGIOUS PLEURO-PNEUMONIA AND INOCULATION IN FRANCE.—At a late meeting of the Société Nationale d'Agriculture, M. Bella called attention to the serious fact that Contagious Pleuro-pneumonia is prevalent to a considerable extent in the environs of Paris, and he commented with some severity upon the incomprehensible apathy of the administration, which appears to stand idly by and suffers the free passage of diseased beasts from market to market, as if powerless to interfere. M. Bouley remarked that Pleuro-pneumonia arises from contagion alone, and that its spontaneous origin is a myth. This being the case, the true remedy is in the hands of the au-

thorities, whose duty it is to put in force the existing prohibitive laws, which are amply sufficient for the purpose. With respect to the extraordinary inaction of the administration, he supposed it must be attributed to the state of transition in which the law on the subject now stands, new regulations being under consideration, and awaiting the sanction of Parliament. As regards the question of inoculation, he believes its value cannot be denied, though many persons who practise it have little or no faith in its efficacy. Certain districts of France which have adopted it, appear to have experienced favourable results, and in any case it would be unreasonable to reject without trial a possible protection which is, at all events, always free from danger, and not unfrequently of real efficacy.

Correspondence, etc.

THE NEW MEDICAL WARRANT.

To the Editor of the VETERINARY JOURNAL.

SIR,—Although the new Army Medical Warrant is not yet promulgated, yet the schedule of effective and non-effective pay has been published. A surgeon obtains the rank of major on twelve years' service with £1 a day pay, and is further permitted to retire at twenty years' service on the same amount, viz., £1 a day for life.

Let us contrast the liberality of these sums with those accorded to the members of the Army Veterinary Department by the Warrant of 1878. A veterinary surgeon never attains the rank of *either captain or major for length of service;* and at twenty years' service, if ranking with a lieutenant, is in receipt of 14s. 6d. a day, and should he elect to retire in that grade at twenty years, is presented with the munificent retirement of 7s. 3d. a day. Assuming, however, he is fortunate enough to obtain his promotion to the rank of captain at the time he becomes eligible, he will then be in receipt of 18s. a day at twenty years' service (*i.e.*, a less sum than the surgeon attains at twelve years), and his retirement at twenty years will be 9s. a day.

Some say we must never hope to compare the status of the two departments. They are right! The medical has made headway by going forward, we have been trying to do the same by walking backwards.

Yours obediently,

"VETULA AVIS."

INOCULATION FOR PLEURO-PNEUMONIA AND GLANDERS.—TETANUS.—DIFFICULT PARTURITION.

To the Editor of the VETERINARY JOURNAL.

DEAR MR. EDITOR.—It is with great pleasure that I solicit the insertion in your valuable Journal of the following gratifying circumstance. In the *Edinburgh Courant* of the 1st November, I read that Mr. Richard Rutherford, M.R.C.V.S., was entertained at dinner, in the Ship Hotel, Edinburgh, on the evening of the 29th September, and received the presentation of a gold watch and chain from the dairymen of that city and other friends in Edinburgh and Leith as an acknowledgment of his successful efforts in suppressing Pleuro-pneumonia in cattle. One hundred gentlemen were present, the chair was occupied by Mr. George Taylor, of Leith; the duties of croupier being discharged by Mr. W. Cooper, Edinburgh. Amongst those present were Professor Williams, Mr. Reid, V.S., and many others of his professional brethren. After the usual loyal and other toasts, Mr. T. Haddow proposed the health of Mr. Rutherford, and, in the name of the subscribers, presented him with a gold watch and chain, also a handsome gold bracelet for Mrs. Rutherford. Mr. Haddow dwelt on the great service rendered to the

dairymen in Edinburgh and Leith, stating that by his system of inoculation he had entirely put an end for the present to the disease of Pleuro-pneumonia. The toast was responded to with enthusiasm, afterwards Mr. Rutherford made a few suitable observations in reply. Among the other toasts were "The Veterinary Profession," the "Dairymen and Cattle Salesmen of Scotland."

Now for a few remarks on the efficacy of Hewlett and Son's hypodermic solutions. During this year I have been called to seven cases of Tetanus, five in colts after castration, two in thoroughbreds, arising from injuries, all of which I am very pleased to say, perfectly recovered under fourteen days by the use of the injectio coniæ and strychniæ alternately used; I cannot, in truth, speak too highly of them, and strongly recommend them to the notice of my professional brethren. Have also met this year with some of the worst cases in calving that have come under my notice for the past twenty-three years. The other day, at Rev. W. Finch's, Woodlands Park, Kingston Hill, near Wimbledon, I was fetched to a short-horned cow, which had been endeavouring to calve during six hours prior to the despatch of the messenger. On examination I found two heads and four fore-feet tightly locked in the pelvic cavity. To move them one inch was impossible. Finding my patient very weak from straining and pain, gave her a pint of brandy in a quart of linseed tea, took off my coat and bared both arms though it was raining hard, procured the assistance of nine strong road excavators and commenced work by inserting the hooks in the orbits of one head. In half-an-hour, by constant traction, the head was moved into the vagina; removed it, corded one fore-leg and amputated that at the shoulder. Served the other in a similar way, then placed the hooks well into the ribs; with one strong pull of the whole nine men, the carcase came. Attended then to my patient and repeated the same dose. Left her for half an hour to recover herself, then cording both fore-feet, and inserting the hooks in the orbits, the second calf came away whole. With sacking to support the hind-quarters, and the assistance of six men, she walked to a loose box in the yard by 5 p.m. More brandy and linseed tea was then given and the general comfort of the animal strictly attended to. I had now been exactly six hours in this open field, at work nearly all that time. In spite of the advice of five or six very old-experienced farmers and dealers, I would not consent to destroy this cow, and ten days afterwards had the pleasure of seeing this animal quietly grazing in front of the pleasure grounds. Any member of the profession who chooses to apply for it, may have a copy of my cleansing drench, which I have never known fail for twenty-four years.

Nov. 17th, 1879. I am, dear sir, faithfully yours,
2, Springfield Road, Kingston-on-Thames. WM. FURNIVALL.

On perusing the papers on Farcy and Glanders, by Robert Ward, and on Glanders and Farcy, by A. E. Queripel, published in your valuable Journal for the 1st instant, I would remark that I have placed myself in communication with His Grace the Duke of Richmond and Gordon, in reference to the erasure of Pleuro-pneumonia in cattle from the Contagious Diseases (Animals) Act, as early as it can be brought before Parliament in the ensuing session. I have also sought the authority (through his influence) to allow me to enter certain stables in London where I know the virulent disease of Glanders exists at this present moment, and enable me, after purchasing some of the affected animals, to try and effect their cure. It may be a bold thing to assert, but nevertheless it is a solemn and true fact, that I have this year cured upwards of 1,200 head of cattle by inoculation, and seven bad cases of Farcy in horses; and so anxious am I to remove the stigma hurled at our profession, that we are powerless to treat these affections, that I have

informed his grace that I am prepared to spend the sum of five hundred pounds of my own income in endeavouring to combat both Glanders and Farcy by the simple process of inoculation. WM. FURNIVALL.

Dec. 4th.

ON THE RELATIVE POSITION OF THE ROYAL COLLEGE OF VETERINARY SURGEONS TO ITS MEMBERS, AND THE WELFARE IN GENERAL OF VETERINARY SCIENCE.

To the Editor of the VETERINARY JOURNAL.

SIR,—Recent events occurring within the council chamber of the College in Red Lion Square have proved that our "governing body" does not, if it ever did, understand the true position it should hold and maintain with regard to professional duties and interests. Therefore, if the present movement does no other good, it will have to be credited with rousing the Council to acquire its proper and lawful position and duties for the first time on record. As your readers are aware, and I trust every member knows, the Council have determined to take counsel's opinion on the duty it owes to its members and Fellows, by having all and every such parts of the Royal Charter of Incorporation, together with the Bye-laws framed under its dictum, wherein the members of the said body corporate have power or voice to be heard on matters of importance or moment, otherwise than at the *annual general meeting* of such body, convened by the then President. Aside from such legal opinion, let us take a plain, common-sense view of the subject. The Royal College surely exists for the profession, and not the profession for the Royal College. The profession already existing was found parentless, and the R.C.V.S. was created or called into existence for the profession, to guide, rule, regulate, and protect such profession; to examine and determine the fitness and qualifications of students from all colleges and schools, fixing and determining such sums of money to be paid by such students . . . . or otherwise; and generally touching *all matters relating to and connected with the said body politic or corporate.*

In common sense this is most plain and easy of apprehension. How the Council failed to see the same, and not to act in accordance with the "requisition" was surely not because it could *not*, but because it wished *not* to see, and when pressed by *two* of its members, resolved to have recourse to legal opinion on the point of *compulsorily seeing*. This, in my humble opinion, was and is a grave error, for so much has been so well done to bring the body together, that it was hoped that this one and only "evil sore" would soon have been taken in hand and radically cured, without fear, trembling, equivocation, or mental reservation of any kind, by the profession's dear parent.

Be all this as it may, the matter will never rest until it is remedied; and if the Governors of the Camden Town school take the matter in hand themselves without a deputation, it will be wise; and although it may be said by the "weak-minded" "it will shew weakness to yield to coercion," I deny it, and so will the "strong-minded;" for it will be evidence that the Governors of the school are most anxious to place themselves on terms of sound friendship with the practitioners, whether they are its own graduates or not.

The profession should consider seriously how it is represented in the Council. I have every respect for each of the colleges—more especially my own, the R.V.C., and hope always to see it lead the van; but in a lawful and just way all the schools should be equally represented, and it should not be lawful for more than one professor from each to have a seat on the Council; and if there are governors to each college who are members of the body, it should not be lawful for more than one governor from each college to have

a seat. The remainder of the members should be made up from the ranks of the profession; thus the profession would be equally and fairly represented.

Let it be distinctly understood that I have the highest opinion of those gentlemen who represent the profession at the board of Governors of the R.V.C., and am convinced they would do that only which *they thought* would tend to the advantage of the practitioners. But I ask, How are they to understand all this? Can a civilian appreciate the *real hardships* endured by the soldier during a campaign? Can he faithfully explain them? Can the soldier do so? If yes, then by all means let him. Army veterinary service is very different indeed from civil veterinary service; the former is a gentleman's life if the man hath "manners;" put him, thus endowed, in civil life, and he would find he was too much the gentleman for the general public. For in these modern times the young "vet." cannot take a position; it is the exception if he does acquire the position, and then it is only with a select few, who really appreciate us—I allude to country practice. What is the cause of all this? Can military gentlemen answer truly? Certainly not! Mr. Fleming is the only military gentleman who has made himself perfectly acquainted with the condition of veterinary science and its practitioners in the United Kingdom, and we have his opinion. Surely he is too well known for it to be thought he is to be won without convincing proof. I trust I may not be considered to be speaking invidiously when I say, that it occurs to me that the R.C.V.S., has never taken its proper position, and I fear never will unless more energy and emulation be brought to bear. The institution is not even recognised as a scientific institute. Look over the various yearly journals wherein you find a list of scientific institutions, and although every other can be found—even the Royal Veterinary College at Camden Town—no mention is made of the more important "body." Take, for instance, Whittaker's Almanac, and a more recent journal issued for this very purpose, "Dickens' Sights and Institutes of London." No such institution as a Royal College of Veterinary Surgeons can be found. Why is this? This is why the general public think the one sole institute is the school at Camden Town.

If the R.C.V.S. allows matters to go on as they may, and cares not for the interests of its members—as evidenced by disinclination to act on the requisition—it matters little what does become of it. Its annual meeting and dinner are but sparsely attended (which has been often and often commented on and deeply regretted), and certain it is that the apathy will not be stamped out if the College is to exist for the Council only and the one general annual meeting, also by *law* ordained—though *legal opinion* never has been taken on this holding, by the way.

With the pass examination the member ceases to have a voice at the College, no matter on what subject; the doors are to be closed at the caprice of the Council. This should not be. There is a most important subject I have long wished to open at the College, and must wait, if counsel says so, till May next, and that subject is, What means can be devised by the members of the profession to furnish the College at Camden Town with interesting cases in cattle pathology, etc., for it appears the school is quite unable to acquire any—it is quite helpless to obtain a case for clinical instruction. One can but dispense pity on those senior students going up in January for their pass examination, who have not seen practice; and still more pity for the examiners in cattle pathology, Messrs. Mayer and Hunt. How they may contrive to sign a diploma without fear and trembling or mental reservation, it will be interesting to observe. They have my deepest sympathy. However, let all things move on as they may; no good will ever come to us unless we all unite to make teaching schools perfect. The sooner the profession considers this subject the better. The only barrier seems to be the Council, and

when the members thereof have recovered reason they will see that the present movement is not taken with any other view, so far as I do or will recognise now or hereafter, than to bring the practitioners and schools together for their general good and the advancement of the science.

My earnest hope is that the old proverb may obtain—"Out of evil cometh good."

Although so many members have deplored the "College Competition," it is sad those opulent ones who should come to the rescue will not assist. Your "Old Cockney" is an exception. When all is satisfactorily arranged, and we have settled down in peace and quiet, we can say to these *conticuere omnes* members: "Keep your mouth shut still; you have nothing to do with the professional sunshine."

One thing has struck me most forcibly, and that is, if the members of the College have no right to hold meetings, or require them to be held at any time, why is it they are and have been so earnestly solicited to contribute to the College Building Fund? It certainly will matter but little to them after they have its diploma, and have entered the business of life in earnest, what becomes of examining-room or examiners.

We will wait the deliberations of the learned counsel employed, and the result of the *Conseils de Prud'hommes.*

To close, one of the Governors told me to remember that the College was now a coporate body, and could do as it liked, and might challenge the profession to interfere. Such challenge would never emanate, I am sure, from a body of gentlemen like the Governors. They would be only too pleased to assist the business, and bring about peace and goodwill. If the body corporate spoke they would listen, and I am certain that eventually all the practitioners want will be granted, and with good grace.

I remain, yours respectfully,

ROBERT WARD, F.R.C.V.S.

THE VETERINARY PROFESSION *v.* THE ROYAL VETERINARY COLLEGE.

To the Editor of the VETERINARY JOURNAL.

DEAR SIR,—Will you kindly allow me a short space in your valuable Journal in order to review a few of the points connected with this subject, so that we may fairly see the objects, etc., of the anticipated meeting of the profession?

The "Honest Competition," "Grievances," or whatever term is given to it, *seems* to have first commenced with a letter on *Our Fees* in the VETERINARY JOURNAL (vol. vii., p. 289). This was responded to in the next month's issue of the same Journal, when complaints concerning the fees charged for the examination of horses at the Royal Veterinary College are first brought publicly before our notice by Mr. Thomas Moore, who, I have no doubt, was prompted to do so from practical experience of the competition he complained of. His statements seemed to open the eyes of other practitioners, for we see in the December number for 1878 that "Artemus Secundus" was rather astonished at Mr. Moore's statements, as he says:—"'Tis sad news for me; for I have just arrived in London to try honest competition. However, as far as examinations are concerned, I must say I am out of it; for who will pay a guinea when a professor can be employed for so small a mite?" This was followed by another from Mr. Moore in the January number of the VETERINARY JOURNAL, 1879, showing that certain horse-dealers produced the certificate (obtained from the cheap examinations we are complaining of) when a gentleman was purchasing an animal—for which the certificate was

given (?)—and so prevented the purchaser from calling in a veterinary surgeon for that purpose.

In the February number we notice a complaint of another kind, although equally just in our opinion, viz., that of the professors demanding high fees for examining horses in disputed cases. This was followed by another, contending that "the privileges offered to subscribers of the Royal Veterinary College are necessary to the life of the institution as a teaching school, and with occasional crack-brained exceptions the practitioners of London have always displayed a spirit of generosity and self-denial worthy of the cause they espoused. The educational department of our profession is, and must ever be to a greater or less extent, a tax on those who follow it, just as the hospitals of London are a tax on medical practitioners; and it is gratifying to know that the impost is borne with grace and liberality, and that the sore-headed growl which Mr. Moore has initiated is not likely to be taken up by right-thinking men."

The next movement in the matter was a meeting of the London practitioners held on May 6th, 1879, to consider the question at issue; but as nothing of importance was brought forward, the meeting was adjourned until June 5th (see VETERINARY JOURNAL, vol. viii., p. 431). At the adjourned meeting, the proximate income of the College and the advantages which the subscribers obtain were pretty accurately put before us, as well as the class of persons on the list of subscribers, viz., wealthy persons, companies, and firms, including dealers; the price charged for shoeing horses, viz., less than practitioners can afford; that cases were received into the College, although it was known to the authorities that the said cases were in the hands of the local practitioner; that the College was used as a repository for gentlemen's horses; that the measures necessary to obtain public notice when the school was founded were no longer requisite: that our status was necessarily ruled by that of the professors, and that it was detrimental to us that the public should obtain advice from the heads of our profession so cheaply (see VETERINARY JOURNAL, vol. ix., p. 46).

Next, we have our attention drawn to the fact that the principal in his report, led the governors to believe that it was the "*cheap practice*" (which the school had justly started for the benefit of its pupils) with which the profession was quarrelling, and the JOURNAL goes on to say:—"The metropolitan veterinary surgeons do not object to the '*cheap practice*' among the animals of poor people, but they do protest, and will protest yet more energetically, against the system of disgracefully cheap practice among animals belonging to a body of subscribers, and not one of whom comes under the designation of poor, but the majority of whom are among the wealthiest of the land" (VETERINARY JOURNAL, vol. ix., p. 216).

Also a letter stating that the council-chamber of the Royal College of Veterinary Surgeons was not put at the disposal of the veterinary profession for their meeting, although it was used for a purpose extraneous to the College business soon after.

The next meeting of the practitioners was held on October 1st, 1879, when it was pointed out that "the Royal College of Veterinary Surgeons represents our profession, and is entrusted with its welfare. If any one should move in the matter, it should be the President and Council, and in the bye-laws it is so laid down. It is the better course, and far more preferable than going to the governor of the Royal Veterinary College." For it was suggested that "if we went to the governors direct, we should be stigmatized as a few grumblers who cannot get on, and have some croaking because we are under a cloud." It also showed that the country practitioner was also involved in the movement; for we read:—"A number of subscribers living in the country receive visits from the teachers, and send horses up to London to be treated, so that the pernicious effect of the system extends far, although it is principally

felt in London." Also, that it was *not* the well-to-do practitioner that need complain, but that it was the young beginner in life who felt it most.

It was also suggested that "the Camden Town College must have advantages for the students to see practice;" that "the institution supplies material to make surgeons (veterinary), if the student only makes use of it." On the other hand, it was equally plain that the present system did not effect this purpose, for the animals sent there were *too good* for that object, and "hitherto the subscription system has not tended to enlighten the students as to practice" (VETERINARY JOURNAL, vol. ix., p. 352).

In the same number of the Journal we read an excellent editorial, pithy and to the point in every sentence, showing (as "An Old Cockney" puts it) "himself to be truly a man of courage, an *Englishman* who can well speak his mind when occasion demands, without the least semblance of fear."

Lastly, that the movement is no new idea, for the writer "talked to Spooner" about the "co-operative" or "subscription" business years ago, and he (Spooner), in his usual 'cuteness, answered, "Well, to start the College this system was adopted; and if the practitioners object to it, they should speak to the governors—I cannot complain." The same writer also says he was sorry he did not read the names of *leading* members on the requisition paper, but justly appeases his sorrow from the fact that "although *their names* were not there, we find others of equal *professional* value—rising young men, whose brain, *not purse*, will raise our standard high."

Sir, after reading the above sentences, let us consider for a moment the origin of this agitation. Was it the letter on "Our Fees," in Vol. VII. of the VETERINARY JOURNAL? We all know it was not, for in Vol. I. of the VETERINARY JOURNAL there is an editorial upon the subject, and we are told that Mr. Mavor and other bygone practitioners had strong opinions upon it. Therefore, it cannot be said that this movement commenced from any controversy between Mr. Moore, the teachers of the London School, or any body else, although we may form our opinion concerning our position when we hear and see the treatment that gentleman received from the principal of that school. However, as far as most of us are concerned, the movement is perfectly independent of any individuals whatever, and no man can (although we have heard they do) justly accuse us of any malice or ill-will towards the London School or its teachers. We believe that every man who signed the petition, and most of those in favour of the movement, have the greatest respect both toward the School and those connected with it. What we want, and what we must have, before we shall be satisfied, is, that the London School should be the pattern, guide, and patron of its past and present students.

There cannot be the slightest doubt in the minds of *right-thinking* men that the charges at the College are much too low for the work done for the subscribers, and much too high for that done for their students. By this last expression we mean, that when any of us are in difficulty and require a second opinion, we are charged excessive fees, the only explanation of which seems to us is, to prevent us from asking the aid of our teachers in time of need.

Again, allowing *dealers* to have an indefinite number of horses examined and certified for a small sum, not only degrades our profession, but also give the dealers a good opportunity to cheat their clients. Thus, if a dealer receives a certificates for a *sound* "bay five-year-old horse," he can, if he chooses, produce this certificate for any "bay five-year-old horse," and so might be guilty of using the certificate, given by our profession for a *sound* animal, to deceive a customer and palm off an unsound animal upon this certificate; thus leading the public to believe that a professor in our profession was guilty of falsely certifying as to the soundness of the animal, and consequently bring us innocently into disrepute.

Since the status of our profession is, and must necessarily be, ruled by that of our leading men, we deem it necessary to ask them to fix their standard on a higher basis. Hence our agitation.

If the report we read with regard to the principal of the London School's conduct in leading the governors to believe what he knew to be false, is correct, then all I can say is, I think he is acting quite contrary to what he professes to preach (on Sundays), and moreover confirms our opinion of his etiquette towards the members of the Royal College of Veterinary Surgeons. We do not say this with any ill-feeling, but simply on the "right" and "wrong" principle. Is it right? or is it wrong? Judging from what has been said, we thought it would be best and our duty to go to the leaders (the President and Council) of our profession and ask them to officiate for us; and I sincerely hope, that although they may feel themselves placed in a somewhat awkward position, they will see their path clear to carry out our claim, and we, as the petitioners, must take all censure which is passed upon them for doing their duty. We are a small body, and a young profession, and cannot bear any burdens or drawbacks such as we are complaining of, but must, to stand, be united, and assist one another with a professional brotherly feeling. We cannot help thinking we have taken the right step, although it appears an unpleasant one.

If I may trespass a little further on your space, I should like to draw your attention to what appears to us to be mistakes:—1st. We have noticed letters and articles in local papers concerning this movement, and we cannot help thinking that our so-called "Grievances" ought not to be published and circulated outside our own circle. Therefore we sincerely hope that no more cutting or petty fault-finding articles will appear in any local paper, so long as we have such an independent journal as yours at our disposal. 2ndly, Those members who do not agree with the movement should not allow their temper to get the upper hand of their common-sense. For it seems very much like it when we hear such expressions as, "Why, there is not a man that signed the petition can change a £5 note;" or, "Why, there is not a man who can earn a shilling for himself," etc., etc. All such statements may be quite true, but we think you will allow that all of us endeavour to alter them. Therefore before fortunate, well-to-do, lucky practitioners, whose pockets are deep enough to prevent them from caring anything about their fellow-men or the advancement of their profession, throw out such mean and, in our opinion, degrading expressions, it would be well if some of them would look back upon their younger days, when, perhaps, they had some such thoughts as we poor moneyless and brainless individuals have, but had not the courage to think *loud* enough. But after all this, I hope such petty jealousies will vanish, and each man, for and against the movement, will see that some of the petitioners at any rate are earnest, unbiassed, and simply want "right." Therefore we hope we shall be able to have our meeting, and the subject properly discussed from this one point of view, and come to some amicable conclusion.

I am, my dear sir, yours truly,

A LONDON GRADUATE AND "PETITIONER."

THE RESPONSIBILITIES OF VETERINARY SURGEONS.

To the Editor of the VETERINARY JOURNAL.

SIR,—I read with great surprise the letter of Mr. Fraser in the last number of the VETERINARY JOURNAL, and I ask space for a few remarks in reply.

His letter may be described as a collection of reckless and sweeping accu-

sations, and it will be my endeavour to show that he has most unfortunately judged the whole body by its worst part, and that he has been most unjust to the profession of which he is a member. First, he says that "it has not unfrequently been remarked to him that any veterinary surgeon or professor can be induced to swear according to instructions, provided a sufficient consideration be offered." This is an insinuation almost too monstrous to merit refutation; but unfounded and disgraceful as it is to those who have made it, yet such a remark may impose upon the ignorant and unreflecting mind. I venture to say that few members of the profession would tolerate such a groundless and malicious slander. Mr. Fraser would seem to have been particularly unfortunate in meeting enemies of his profession.

He goes on to say, alluding to a veterinary surgeon—and by the way in which his letter is worded apparently intending to include all—that "there is not a spark of honour to which you can appeal." Then he continues that "a veterinary surgeon can rarely be called a gentleman in ordinary behaviour," and he proceeds to say that there is in the profession an almost entire absence of the moral sense!

Really all this is very sad, and such opinions will occasion much surprise, in the minds of veterinary surgeons, that any one should be found to broach them in this nineteenth century. We all of us know that no race, even of savages the most degraded, has yet been found destitute of moral sense. But the fact is, that veterinary surgeons are universally credited with a great deal of it, as is proved by the public constantly and confidently giving to them the trust of examining very valuable horses for soundness; and so worthy have they proved themselves of this trust, that rarely does a prudent man buy a horse without the protective intervention of a veterinary surgeon. It is absurd to argue that people would pay a fee, and anxiously wait the opinion and advice of a man whom they considered destitute of the moral sense. And it is still more absurd to think that Government would pay cattle inspectors all over the country if that were the case.

But it is useless to discuss this matter further, as the public show us in almost every possible way that not only do they credit us with a very high moral sense, but also, even in this money-making age, with a high sense of honour. In no way can a man more show this than when he gives you the control of his money, which he practically does in many different ways to the veterinary surgeon.

As to the conversation of veterinary surgeons, it is true, and it is a matter for congratulation, that when a few of them meet, their talk is chiefly professional. It only proves what an interesting avocation we follow, and it is universally allowed that it is one of great humanity (for its intention is to alleviate pain and suffering), that it is truly a science, and of the greatest utility to human progress and prosperity. That it should be the most interesting topic to veterinary surgeons, redounds to their honour and credit, and it can never cease to be so until all idea of advancement has been swamped in a degrading apathy, which it is to be hoped we may never seriously regard as possible. The same may be said of all professions which possess a healthy and vigorous vitality.

As to general information and literary culture, my personal experience is that I meet very many veterinary surgeons of wide and varied reading.

Mr. Fraser is quite right in describing an inordinate love of money as withering, and we shall go with him there. I suppose, however, that no body of men perform more acts of unobtrusive charity and benevolence than veterinary surgeons. If it were proper to do so, how many names could I write here to prove this statement!

I may take this opportunity to remark upon the very inadequate charges made by some veterinary surgeons for their services. I will here particu-

larly name one. I have said, and too much stress cannot be laid upon it, that the public place great confidence in veterinary surgeons for the examination of horses. It is a great trust, yet the fee for it is generally only ten shillings and sixpence. It is *absurdly low*, and it may be asked if the time has not come for raising it to one guinea. Mr. Paley and Mr. T. D. Lambert, of Dublin, about three years ago began this practice, and they find it pays far better and far more than the old half-guinea system. In Dublin, a man giving only twenty pounds for a horse gladly pays an extra guinea for the veterinary surgeon's examination; in fact, it is found in practice that the guinea soon begins to be looked upon as the customary and natural fee. When the above-named gentlemen first gave notice of this increase of charge, there were the usual croakings of the faint-hearted, that it would never do; that people would dispense with the examination; that they would only pay it for expensive horses, that the half-guinea men would soon get all the work, and other nonsense of a similar kind; yet the result has now conclusively proved that the guinea is as willingly paid as the smaller fee. It is only to be expected that the larger charge should inspire more confidence; such is human nature. Remember, also, that no additional responsibility is incurred by these veterinary surgeons who disclaim any pecuniary liability for their opinion, should it unfortunately turn out to be erroneous, and I say it *advisedly*, that I believe the law would be found on their side if the legality of this view should be tested.

Instead of writing to discourage veterinary surgeons, as some weak-kneed members of the profession do, I will here say that many of them are not independent enough with those who employ them. Those, however, who are successful, have been much helped in becoming so by having a large share of self-respect and a due sense of their own dignity, which leads them to soon place any one who tries to slight them in his proper position, and makes him disinclined to repeat the experiment. They have the tact to do this, as a rule, in a quiet and gentlemanlike manner, which at once places them on a pedestal superior to that of the offender, and ensures his involuntary respect. A very clever French writer has well said, "*Il faut se faire valoir*," and those who use this maxim with discretion will find how much valuable wisdom is contained in it.

Veterinary surgeons have to deal with all sorts and conditions of men, and they should, where they are in the right, stand by each other. Surely in law cases we can strive to make an array of our witnesses on opposite sides a thing of the past. Difference of opinion there will always be; there is more in the medical profession than in ours, but the former has been so disciplined that *esprit de corps* prevents it, except in rare cases, from squabbling in the witness-box. Is it not most desirable that the appearance of the professors of our colleges in the witness-box may be, unless called by the court, "a custom more honoured in the breach than in the observance"?

The veterinary profession is making most satisfactory progress, and is every day becoming better educated. It is rapidly rising in public estimation, and must continue to do so. It is therefore to be wished that it will not receive stabs in the back from its own ranks, which are usually prompted by unworthy jealousy, and which should always meet with severe condemnation. It may with great justice be said that the profession suffers most from internal enemies, and that those who make war in it with words are almost always those who never do anything to help it by deeds. They play an ignoble part, and they are the croakers who prophesy failure until the benefit is achieved, but who are then the first to apply it to their own advantage.

Your obedient servant,

JAMES LAMBERT, F.R.C.V.S.,
Veterinary Surgeon, 17th Lancers.

December 4th, 1879.

To the Editor of the VETERINARY JOURNAL.

SIR,—Pray give me space in your valuable Journal to ask Mr. Fraser, whose letter appeared in your December number, to study the character of Thersites, as portrayed in Pope's edition of Homer. He will find it in the second book of the Iliad, and it may be profitable to him, as showing what part in the drama of life it is desirable *not* to play. Your obedient servant,

Manchester, *December 14th*, 1879. "A VETERINARY SURGEON."

PROFESSIONAL ADVERTISING AND "SPECIALISTS."

To the Editor of the VETERINARY JOURNAL.

SIR,—I have had no desire till now of occupying your pages, other than in the official capacity you have hitherto received my papers; still, the letter in your December No. on "Professional Advertising," and the strictures you make thereon, must be my excuse for asking you to allow me, as a delinquent, though not one of those immediately referred to, to attempt to justify myself.

For some years past the papers and catalogues of shows have had an increasing number of advertisements, the production of chemists, quacks, and, I must admit, of duly qualified veterinarians extolling their respective nostrums. In these, dog medicines have had a large share; and it is not to be wondered at when we remember, first, how meagre was the instruction afforded by lectures, etc., in the College at Camden Town up to perhaps five years ago on the ailments and injuries of the dog and cat; and next, that the indifference to the care of these animals, commencing there, becomes adopted by its graduates who, ignoring the claims to attention these animals undoubtedly have on them, has induced men outside our ranks to take up what we discard, and reap considerable advantages by pursuing it. Among the advertisements, for a long while appeared one, the writer of which affixed certain letters to his name, and who was, and is even now, generally supposed to be qualified; many veterinary surgeons do not know to the contrary, and even if they do, will send clients there, because they do not affect to deny their dislike to treat "dog diseases," and are equally unacquainted with such a specialist among their own members. I sought to induce the publishers of the journals in which the name and accompanying initial letters appeared, to explain and withdraw them, and eventually succeeded; as I urged that they implied a professional degree which the writer did not possess, and was calculated to mislead the public.

Finding this apathy so general among our members, some of whom do treat their cases, but would rather not, because of the want of due attention in their earlier days, or repugnance to the risk of bites, and the personal manipulation required by their owners, and also that the public have been and are constantly at a loss where to go when their household favourite is ailing, I initiated in 1875, and have continued up to now, a form of advertisement (see advertisement pages of Journal), which I believe to be free from any "touting" or "shoppy" terms as generally adopted; if the word special, of which more anon, may be deemed an exception, and I invite the fullest criticism on it in your Journal, or by private correspondence.

It is a matter for regret that certain M.R.C.V.S. will use their degree in print as a means of working extraneous business, such as horse and dog dealing, and vending drugs like a chemist, who thinks his goods second to none; but no amount of correspondence will educate their minds to a sense of their false position, or induce them to alter it, *if it pays!* I can assure you my advertisement does not pay as one more pompous, without doubt, would.

With the increasing responsibilities of the veterinary surgeon, it must inevitably follow that one or more veterinary surgeons will gradually be singled out as an expert in some particular branch of practice, and eventually

be oftener called in to consult on it. It may be for lameness, chest affections, surgical operating of one or all kinds, veterinary jurisprudence, cattle inspectorship, sanitary and dead meat inspectorship, horse examiner, professor, consulting veterinary surgeon only, or many other sections of our daily duties, and last, but not least, that for which I have most preference. And it is not too much to suppose that these branches will, if taken up specially, become widely known without advertising, by professional recommendation and public discrimination; and it can only become *un fait accompli* by ceasing to be jealous of our neighbouring practitioners, and adopting the Royal College motto in practice as well as on our billheads. I notice already that some of the Fellows of the Royal College of Veterinary Surgeons and a few retiring practitioners, are adopting the title of "consultants;" they are surely specialists in a wide sense, and are appealing to their fellow-members for an acknowledgment as such, and not as intending to treat the cases they may have to see. You too are a specialist, and take first rank as our "literary" champion; for was it not by first advertising (I use the word advisedly) as a veterinarian in the public press the nature of the remount difficulties and expected diseases in the Abyssinian campaign, and afterwards repelling every attack on our professional knowledge, as a body, made by public writers, that you eventually started this Journal, in which both sides are admitted for criticism? That medical men seldom advertise is apparent, for the names of specialists are as household words among them, and their connection either past or present with the special hospital for deformity of its kind, etc., is so well known as to need none other. It is presaging too far ahead to expect the like among us. That they do advertise, and have not lost caste or dignity thereby, permit me, in differing with you, to substantiate, by sending you enclosed circular from the *Times* of a candidate for an important medical office in the City of London. The applicant details in the first person his scholastic and medical acquirements. Very often similar letters appear from medical men of known high rank. The writer of a medical work who, in his title-page, sets forth his many qualifications to produce it and previous works, is, in my humble opinion, as much advertising himself, and honourably so, as

Yours faithfully,

Marylebone, *December 8th*, 1879. JAMES ROWE, JUN.

THE VALUE OF A PROFESSOR'S OPINION ON HALTING AND HOBBLING.

To the Editor of the VETERINARY JOURNAL.

SIR,—The serious and sad charges brought against me by Mr. Colam in your last issue, for writing that letter on the above subject, in your November number, must be met by me and dispersed; and although at the first glance it may appear difficult, yet I feel certain I can do so most effectually, and by the time Mr. Colam arrives at the end of the present letter he will discover his errors, and that he has prejudged my meaning entirely.

At first I felt pleased to find either you, sir, or Mr. Colam had divided the epistle into sections or paragraphs, and I thought I would reply to them *seriatim*, but reflection dictates that I should reply generally, and spare your valuable space.

Firstly, I will state most emphatically that I claim to be a LOYAL AND AN HONOURABLE member of the profession in the strictest meaning or sense, and you know it, sir; so I trust you will allow the remark to be underlined.

I utterly deny *animus*, or an evil intent with regard to Mr. Colam's society, or on the Professor's abilities. The former has done much good, and I trust may long continue to do so. I have assisted it, and ever will; moreover, I am doing so now, penning this, as will be seen clearly be-

fore I close. Then a word as to the Professor, whom I hold in the highest esteem. I never inferred incompetency, for there is no member better qualified as a practitioner for such a task. Time and place should be chosen. I said it was most *lamentable* to see a professor in a police-court, and I repeat it—more especially so when the defendant is a poor "pig-feeder," and his *medical* witness a *quack*.

Why employ a "Nasmyth hammer" to break an egg? Surely a learned magistrate will not submit to such a system; for the poor "pig-feeder" was quite *hors de combat*—he could not command the luxury of a *Professor* as a witness, but was obliged to put up with the best his slender means could afford. Surely the intelligent lookers-on must have thought the society had a very weak case, when, ignoring the ordinary intelligent practitioner, it hauled the Professor from his *sanctum* to convict the poor "pig-feeder" with his "quack!"

Soberly and seriously speaking, what would any number of loyal and honourable members of the profession say to the picture? Is it to the interests of veterinary science and the cause espoused by the R.S.P.C.A., that our professors shall exhibit themselves in our police-courts? What will be thought of our profession, should each one of our professors so engage himself? If a professor occasionally went to give evidence as an expert on an adjourned case—for such evidence to be forthcoming it might be admitted; but to make a *common hack* of a "professor," or allow him to make a *common hack* of himself, is, I am sure, what no member, *loyal* and *honourable*, could witness without comment; and I feel sure you, sir, Mr. Colam, and the Professor—"*the trio*"—will follow me, and say that I have done my duty by directing attention to the matter.

There cannot be a doubt that many members think it leads to notoriety to see one's name in a police-court report, but no such desire can rest in a professor's mind. He is, or should be, too retiring for such notoriety. It is noble of him to assist in suppressing cruelty to the poor dumb creatures around us, which certainly does abound to a most alarming extent; but in doing so, *modesty* should dictate to them that it does not stand well in the mind of the intelligent public and a police magistrate to see them appear in "*common*."

A word about the "quack." I am somewhat astonished that neither the Professor nor officer stated that the individual was so in open court. Had they done so, I am sure the *Daily Telegraph* would never have stated he was a *veterinary surgeon*, for it is the first to expose charlatanism of any kind. The Zulu and his assegai, I will pass with the other reflections, which, I am sure are not intended in earnest, even the reference to a "real practitioner"—although I do believe the remarks on the "hanger on to the profession" are.

I have reason to know that of all our able police magistrates, the one referred to is one of the most Christian-like and kindly disposed we have, who would be the first to anticipate a case of cruelty, and who must have viewed this case as it stood in a temperate mood, and failed to appreciate the zeal of the society.

I am quite certain that Mr. Colam will succeed far better if he selects his professional witnesses from the ranks of the profession; and in a case of some interest he has the choice of some Fellows of the Royal College of Veterinary Surgeons, I believe, in the metropolis, who, as men of professional status are, or should be, at least of equal professional value to a professor, for the former have to pass a searching examination prior to obtaining the degree, whilst, as matters now are, the professors do not. I trust this will not be taken as *bad animus* or *childishness*.

After reflection has been cast over the remarks I have penned, I think my real meaning and intent will become most apparent, and that instead of

the construction placed thereon by Mr. Colam, the real object will be acknowledged, tending to the good interest of the society and the veterinary profession in general, to attain which I trust, sir, you will pardon me for staining your valuable sheets. I am, yours respectfully,

London, *December 2nd*, 1879. "RADIX."

COMMENTS.

IRELAND appears to be as well supplied with impostors, who "doctor" animals and put themselves forward as competent men, as England. But it would seem that in the sister island, the law—or, at least, those who live by the law—afford countenance and patronage to these accomplished and skilled individuals, if one may judge from a case which came before the Roscommon Petty Sessions not long ago. It is reported in the *Irish Times* of November 24th, that Constable Coghlan charged a "bone-setter," named Bryan Mullany, of Ballybarnon, with being guilty of cruelty to animals under the following circumstances:—It appears a carter had occasion to convey his horse to an island on Loughkey, and on landing, the horse slipped and sustained a fracture of the leg at the elbow. The defendant was sent for to attend the animal, and he proceeded to remedy a fracture at the elbow joint by putting wooden splints on the horse's knee, drawing the skin through the slits, and driving iron spikes a few inches in length through the skin and tissues beneath, in order to secure the splints to the leg. The wounds thus occasioned suppurated, the limb swelled, and the poor horse, after enduring great agony for a few days, was shot. The defendant now said in excuse that he was in the habit of "fixing" cattle and horses for the last thirty-five yeurs, and with great success. His solicitor, Mr. Metcalfe, described the defendent as a public benefactor, and said that so long as such men were to be had in the union, it was a humbug to be bringing veterinary surgeons into the place and paying them salaries out of the rates. The bench, however, thought otherwise, though they only imposed a fine of five shillings on the defendent.

The audacity and sham philanthropy of Mr. Metcalfe were only equalled by the ignorance and cruelty of the bone-setter "benefactor," and the eloquent limb of the law must have imagined the bench to be particularly stupid as to the merits of benefactors. One almost regrets he could not have sustained a similar accident, in order to allow Bryan Mullany to give him a taste of his bone-setting benevolence. Bryan should have been sent to prison and Metcalfe to Coventry.

IT is curious how many cases of Hydrophobia have occurred within the last few years, in which the dogs that inflicted the wounds never showed any symptoms of Rabies, and were produced in good health at the inquest on the deceased persons. In about a month three such instances have been reported; the last happened in Manchester, and was that of a boy who was bitten in the face by a black retriever. About a month afterwards Hydrophobia set in, and death soon took place. The dog was shown at the inquest.

LAST month a domestic servant—a woman, nineteen years of age—died from Hydrophobia in Aluchterderran, Scotland. Eleven years before, she had been bitten in the thumb by a bulldog kept by her parents. About two years ago she felt coniderable pain in the bitten hand.

A correspondent states that in our professional contemporary for December, in a paper on Indian Remount Depôts, it is mentioned (p. 864) that in native cavalry regiments "every trooper buys his own horse by instalments." He wishes to know how this extraordinary proceeding is managed, and if the trooper also rides the instalments of the horse before the purchase is completed. His experience of ordinary horsemen leads him to believe that they prefer the whole horse or none; but in foreign countries strange things are witnessed. We make no comment on our correspondent's remarks, nor do we venture to answer his question, merely recommending him to apply to the courteous editors of the periodical in question for a solution of the mystery.

ANSWERS TO CORRESPONDENTS.

PFERD.—We have much pleasure in replying to your queries. 1. In Germany the best veterinary schools are perhaps those of Berlin and Munich. The latter can boast of the distinguished teachers, Bollinger, Friedberger, and Feser. In Austria the veterinary school is at Vienna, and was until lately presided over by the well-known Professor Röll. In France the three veterinary schools at Alfort, Toulouse, and Lyons, have each their special recommendations; but under the direction of the celebrated Chauveau, the latter school bids fair to be one of the best in Europe. 2. We do not know whether the diploma of the Royal College of Veterinary Surgeons is recognised by these countries as conferring a claim to exemption from any portion of the extensive curriculum they impose upon their students. We believe it does not, and that our graduates would have to pursue the full course in order to obtain the pass certificate. 3. The best French veterinary periodicals are the *Recueil de Méd. Vétérinaire, Archives Vétérinaire, Revue Vétérinaire*, and *Journal de Méd. Vétérinaire*; German, the *Deutsche Zeitschrift für Thiermedecin, Archiv für Thierheilkunde, Archiv für Wissenschaftliche Veterinärkunde*, and the *Oesterreichische Vierteljahresschrift, für Wissenschaftliche Thierheilkunde*. 4. There is difficulty in giving advice with regard to literature in these languages. We can recommend Lafosse's "Pathologie Vétérinaire," Peuch and Toussaint's "Chirurgie Vétérinaire," Röll's "Lehrbuch der Pathologie und Therapie der Hausthiere," and Armbrecht's "Lehrbuch der Veterinär Chirurgie."

P. S.—See the article in the present issue.

Owing to the extreme pressure on our space, communications from Messrs. Robertson, Oliphant, Nunn, Hill, Ward, Poyser, Moore, Furnivall, Dwyer, as well as reports of the Liverpool, Scottish, and North of England Veterinary Medical Associations, are unavoidably held over.

Communications, Books, Journals, etc., Received.

COMMUNICATIONS have been received from G. Mitchell, Melbourne, G. A. Banham, London; W. Broughton, Leeds; A. Jones, Queen's Bays, Dublin; T. H. Merrick, Kettering; W. Furnival, Kingston-on-Thames; A. B. Wren, Stimbridge; J. Nunn, R.A., Afghanistan; "Radix;" D. R. Sowerby, Hull; "A London Graduate and Practitioner;" M. Hedley, Dublin; J. Lambert, 17th Lancers; J. Rowe, jun., London; J. W. Hill, Wolverhampton; C. Sheather, London; M. E. Decroix, Army Principal Veterinary Surgeon, Paris; W. Robertson, Kelso; J. Mills, Royal Horse Artillery; D. Hutcheon, Liverpool; G. R. Dudgeon, Sunderland; C. Whitworth, London, J. C. Dwyer, Royal Artillery, Woolwich.

BOOKS AND PAMPHLETS: *H. Toussaint*, Recherches Expérimentales sur la Maladie Charbonneuse; *Longhi ed Tirinanzi*, Dizionario dei Termini, etc., delle Scienze Mediche E Veterinarie; Live Stock Journal Almanac; *E. Dele*, Experiences Relative a la Culture de la Trichinose, La Trichine et la Trichinose; *H. Anacker*, Specielle Pathologie und Therapie für Thierärzte; *M. E. Decroix*, Etudes sur la Ferrure a Glace, L'Hippophagie et les Viandes Insalubres.

JOURNALS, ETC.: *Recueil de Méd. Vétérinaire; Wochenschrift für Thierheilkunde; American Veterinary Review; Live Stock Journal; L'Echo Vétérinaire; Journal of the National Agricultural Society of Victoria; Field; Lancet; Medical Press and Circular; Archives Vétérinaire; Œsterreichische Vierteljahresschrift für Wissenschaftliche Thierheilkunde; Der Thierarzt; Practitioner; Annales de Méd. Vétérinaire; Revue Vétérinaire; Agricultural Gazette; Mark Lane Express; Farmer.*

NEWSPAPERS: *Melbourne Argus; Melbourne Age; Suffolk and Essex Free Press; Colman's Rural World; Irish Times; Globe; Freeman's Journal; Manchester Courier* (two copies); *Montreal Gazette; Melbourne Argus; The Trades Monthly.*